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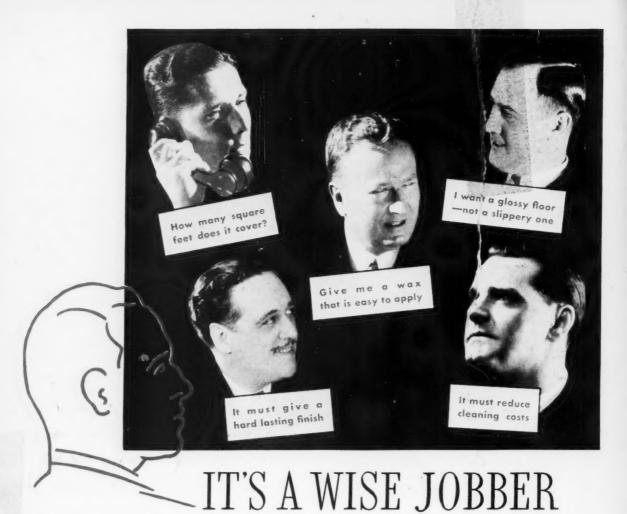
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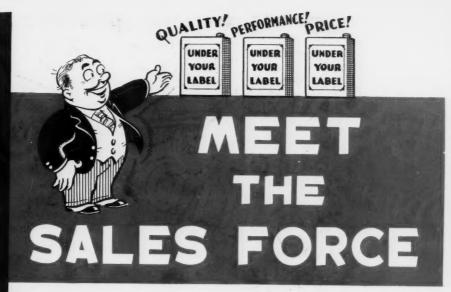
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Volume XI Number 8

Reg. U. S. Patent Office

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August, 1935



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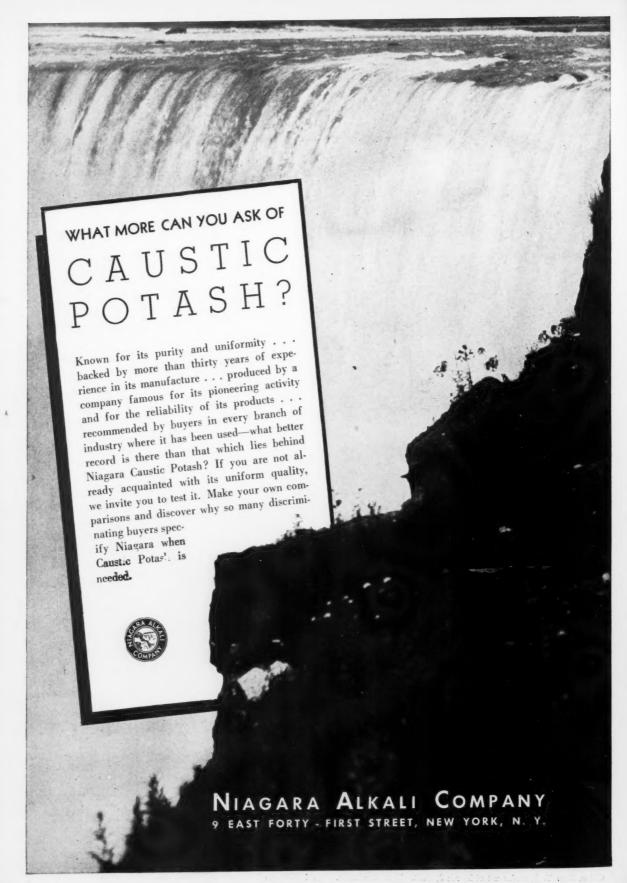
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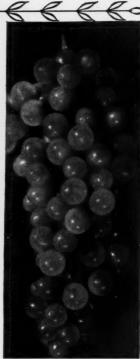
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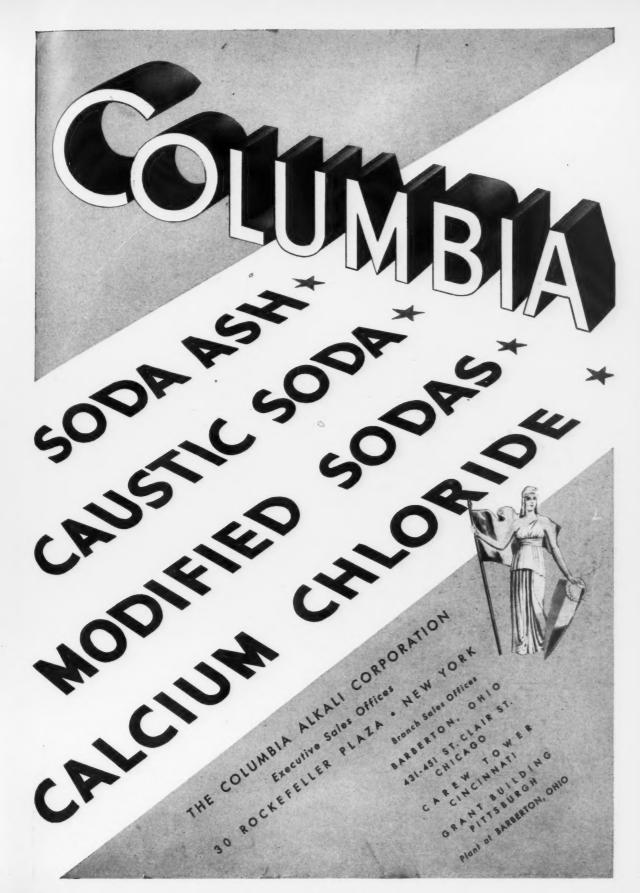
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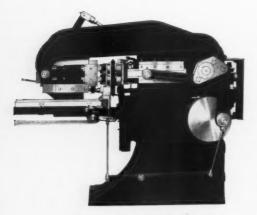
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SOAP

Volume Eleven

Number Eight

As the Editor Sees It

Made a greater operating profit during the first half of 1935 than they did during the corresponding period of 1934, were the exception rather than the rule. The answer lay in the ratio of raw material costs to soap prices. Such profits as were made, were primarily inventory profits,—in fact, speculative profits and not a real profit on manufacturing operations. But are soapmakers raw material speculators or manufacturers? Truly, it becomes more difficult to tell judging from the way in which prices for some finished soaps are set. But inventory profits for the second-half of the year may tell a different story.

TITH the recent setback which the processing tax under the A. A. A. received when the law was declared unconstitutional in a Federal Court, some soap makers apparently wonder why the processing tax on coconut oil and other imported vegetable oils is not likewise unconstitutional. The A. A. A., or the Agricultural Adjustment Act, was designed primarily to support the price of agricultural commodities, the degree of support deemed necessary being at the discretion of the Secretary of Agriculture. In other words, the authority was delegated to him by Congress to set the amount of the tax. In the case of coconut oil, the tax is in reality an excise tax of definite amount set up as part of the Revenue Act of 1934, and ostensibly to obtain revenue. That this tax should apply at the time of first processing is only incidental. It is in fact an excise tax just as the taxes on tobacco, alcohol, and jewelry, and as such it is very probably altogether constitutional. Its removal will therefore probably not be through the courts, but through Congress, when and if that body ever gets around to it. On the other hand, we understand that in the opinion of some legal authorities, the payment of the tax on coconut oil to the Philippine Government is the unconstitutional feature of this law, and an attack centered on this weakness might bring about the defeat of the tax in the courts.

TNDUSTRY generally does not seem to be L taking as kindly to the idea of Federal Government loans for new equipment, new plants, and the like, as was apparently expected. Once again, Government agencies through the Federal Reserve Bank are encouraging manufacturers to take advantage of these loans to buy new machinery, to expand and modernize their plants, and even to secure working capital for extended periods,—for considerably longer periods than the average bank loan. Through the trade associations of the country, the Government is apparently trying to stimulate its lagging loan business. Its efforts to arouse interest in the channels of business and industry these many months past have quite evidently met with only meagre success. And this may be due in whole or in part to the fact that American business men,-differing perhaps a trifle from some of their political brethren in Washington, - still believe that a debt is a debt, and that a dollar borrowed today should and must be repaid tomorrow. Nevertheless, for those in our industries who feel the urge to borrow some Government money to modernize their plants, or to build a new plant, or to use as working capital, we dutifully and respectfully refer them again, as we did six months ago, to the nearest branch of the Federal Reserve Bank for further details.

ETTING aside reserves by several soap manufacturers to cover possible contraction in the value of raw material inventories, is unquestionably a wise move. What they have done, in effect, is to discount the rise in oil and fat inventory values during the past six months. Already the recession in prices since July first has cut down the value of fat stocks in the hands of soapers. Those soap makers who purchased at the top,-and many did,-find themselves with materials on hand which in the present market look rather high priced. However, if the opinion of oil and fat brokers with years of experience in the market is any criterion, coconut oil, tallow and other oils have about reached bottom of the present movement. Several have stated that they look for a resumption of heavy buying within the next month. They feel that prices are at bottom and that the turn upward may be fairly sharp. By the time high-priced oil, now in storage, gets to the kettle, its cost may be more in keeping with the then current market.

In THE current mail, we have a request for a formula and manufacturing directions for a rug shampoo from a Canadian subscriber. We must repeat that we cannot supply formulas or manufacturing instructions. Such data when published is seldom complete and is given purely for the purpose of comparison and discussion among manufacturers already in the business. The place to obtain complete manufacturing information is certainly not in a trade publication. It is from a consulting expert, a number of which are listed every month in the back part of this publication.

VISITING at the home of a rather well-known manufacturer of shampoos recently, we noticed in the bathroom cabinet a bottle of a nationally advertised shampoo,—a product not made by the master of the household in question. We inquired of the lady of the house why she did not use one of the brands manu-

factured by her husband's company. She said they were not available in the local stores and he just did not bother to bring them home. So she did the next best thing,—bought at the corner drug store a bottle of the most widely advertised product. Just another case of the shoemaker's children going barefoot.

ITH a large order at stake, it is surprising how gullible some soap makers appear in respect to the prices which are mentioned by buyers. It is an old hackneyed trick to give this or that seller "preference" if he will "meet" the supposed price of several other soapers. Usually this "meeting" the price means a very substantial cut. But still the sales forces fall for it month after month. If they only "meet" competition, they can always obtain satisfaction in that righteous feeling that the other fellow was the first chiseler and that they merely beat him at his own game. To feel very holy and to get the order both at the same time, must be very satisfying,—even though deep down the seller knows he has been taken over the jumps by the purchaser, and that he really did cut the price to get the business.

RECENTLY we received a letter from a small manufacturer asking if it were practicable for him to attend himself to the details of filing a trade-mark petition in Washington. His object, of course, was to save the money for attorney's fees. Naturally, we advised him against it, just as we would advise anybody against going into court to try his own case even though legally he is within his rights in doing so. The fees paid for expert service in filing a trade-mark are usually well spent. The assurance that the job is legally and correctly done is vitally essential, and only the experience of an expert can give this assurance.

A LTHOUGH the United States exported three times as much in the way of toilet soaps and toilet preparations as were imported in 1934, a study of the figures shows just how small a part of the American soap output is shipped out of the country. In the case of toilet soap, for example, based on the total value of American soap production, something less than one-tenth of one per cent was represented by export shipments in 1934.



Special Cleaners

A Discussion of Cleaning and Spotting Fluids, and Rug and Upholstery Cleaning Preparations

By C. A. TYLER, Ph.D.

LEANING and spotting fluids serve two distinct purposes. First, they are used on materials that may be adversely affected by soap and water, which corresponds to the usual dry-cleaning. Second, they are used to remove spots such as grease spots on which soap and water may be inefficient. Various types of volatile organic fluids are suitable as they do not have the "wetting" action of water and in general they are good grease solyents.

Gasoline has been used extensively as a non-aqueous solvent for cleaning purposes. Its one great advantage is cheapness, but the dangers involved in working with it have pretty much placed it in the discard for this purpose. Explosions have been known to occur merely from a spark of static electricity produced by swishing silk pieces around in gasoline. In addition gasoline contains impurities which cause some stains to set. A natural development from gasoline was the use of a petroleum distillate such as VM&P, varnish makers' and painters' naphtha, containing fewer impurities than gasoline but still highly inflammable. This has a boiling range of 200 to 320° F.

Because of the great loss of property and life arising from the use of these highly inflammable liquids, a spe-

cial naphtha was developed for dry-cleaning purposes known as Stoddard Solvent. This now appears on the market under many names. It is inflammable, but not as dangerous as VM&P naphtha, as its boiling range is somewhat higher, 300 to 410° F. and its flash point according to standard specifications may not be lower than 100° F. as determined in a closed Tagliabue tester. As a cleaner, naphtha might be classed as fair. To improve its cleaning properties, it is sometimes mixed with dry-cleaners' soap. This is made by mixing oleic and stearic acids with the naphtha and half saponifying. In other words an acid or superfatted soap is obtained. Alkalies used for saponification are triethanolamine, ammonia, caustic soda or caustic potash. Such a mixture contains up to 8 to 10 per cent of water. This product is sold in dilute form, that is, diluted with naphtha, for use in these small home dry-cleaning machines and, of course, for large scale work. Such soaps are present in very few spot removing fluids for home use, although a small number contain traces, perhaps one-half of one per cent of dry-cleaners' soap. The purpose of soap in the solvent is to permit greater penetration of the dry-cleaning solvent and to overcome the effect of surface moisture on the fabric. If soap is present to any great extent, it



gives the cleaner a cloudy appearance, instead of the usual clear transparency.

Chlorinated solvents are more expensive and in general, better cleaners than naphtha. The one most used is carbon tetrachloride. Besides being a strong solvent, it possesses the great advantage of being non-inflammable. It also leaves garments free from objectionable odors, which is one of the drawbacks of hydrocarbon solvents. A very pure grade should be used for dry-cleaning, as small amounts of free sulfur have a deleterious action. Carbon tetrachloride takes up moisture from the air and should be protected as far as possible from the presence of moisture. If excess water is present, the carbon tetrachloride may hydrolize to a small extent, giving free hydrochloric acid which may attack metal containers and fabrics on which it was used.

Another solvent in this class is trichlorethylene which is non-inflammable, non-combustible and non-explosive. It is a good solvent and is completely stable in the presence of moisture. When combined with dry-cleaners' soap, its cleaning action is very efficient. Ethylene dichloride is somewhat similar to trichlorethylene, but can be ignited. To make it non-inflammable, three volumes are mixed with one volume of carbon tetrachloride. Ethylene dichloride is a good solvent for gums and resins as well as oils and fats, and therefore makes a good spotting fluid or general "fabric cleaner," which is the term ordinarily used by the housewife. New solvents of the chlorinated type are being developed from time to time to meet special dry-cleaning requirements. On an average a new solvent applicable to this use is developed in commercial quantities every six months. It is therefore not surprising that improvements in the properties of fabric cleaners have occurred in the past few years and it is a

reasonable prediction that further improvements will occur.

Mixed Solvents as Cleansers

A LTHOUGH individual solvents are sold as cleaners, a large quantity of mixed solvents is also sold. Mixtures are made to improve solvent properties and, a point emphasized much more, to reduce inflammability. Many cities have fire regulations governing the control of inflammable material within the city limits, and issue permits for all those handling such materials. For example, in New York City, no permit will be issued for the sale of a fabric cleaner having a flash point below 80° F. This is also the minimum set by the Interstate Commerce Commission. The code of ordinances of New York City defines an inflammable mixture as one which will emit an inflammable vapor at a temperature below 100° F., when tested in a Tagliabue open cup tester.

Another class of fluids which are considered even better cleaners than the chlorinated solvents, is represented by the aromatic hydrocarbons such as benzene, toluene, xylene, etc. They are less expensive than the chlorinated solvents, but more expensive than naphtha. Their great drawback is their high inflammability. By themselves they have very low flashpoints and would be banned in interstate commerce, as well as in such cities as New York.

A common practice is to mix a cheap fluid such as one of the various grades of naphtha with a non-inflammable solvent like carbon tetrachloride, and to a lesser extent, trichlorethylene, in order to get an inexpensive cleaner of sufficiently high flash point to sell anywhere. However, several so-called safe cleaners have been found



where cost reduction has been carried to a point beyond due respect for fire hazard. Also such mixtures will change on standing under conditions where any evaporation can occur. Since carbon tetrachloride has a lower boiling point than naphtha, hence is more volatile, it evaporates faster than naphtha, and the liquid mixture becomes progressively more and more inflammable. This is particularly dangerous because the user is apt to rely on its original non-inflammability and thus handle it more carelessly than he would if he knew it might acquire the fire hazard of naphtha.

The main considerations in mixing these two liquids is to have the proportions of carbon tetrachloride sufficiently great so that the mixture is non-inflammable not only when first mixed, but throughout its evaporation range. There is always some minimum proportion of non-inflammable liquid which should be present with the inflammable. Naphthas vary considerably in their distillation ranges, so that the proportions needed cannot very well be generalized. It has been found that the usual VM&P naphtha requires 55 parts of carbon tetrachloride to be mixed with 45 parts of naphtha in order to obtain a safe blend. Higher distilling naphthas are available which require less carbon tetrachloride for safety. The behavior of mixtures on evaporation should be determined by actual tests. Addition of naphtha to carbon tetrachloride does not affect the corrosive action of the latter in the presence of water.

Unlike naphtha, benzene is a definite chemical compound and therefore has a definite boiling point. This is very near the boiling point of carbon tetrachloride, so that the two make an almost ideal mixture from the point of view of remaining unchanged throughout the evaporation range. The following shows the relationship of the boiling points.





		Boiling Point			
Carbon	tetrachloride	77° C.	or	170° F	7.
Benzene		80° C.	or	176° F	7.
Toluene		111° C.	or	231° F	

Benzene has such a low flash point that only about three volumes of benzene can be used with each seven volumes of carbon tetrachloride, but this proportion will be practically unchanged throughout evaporation. Toluene, on the other hand, has a higher boiling point than carbon tetrachloride and therefore the latter will evaporate faster. The following table shows the change in flash point after one-half of the liquid has evaporated, with varying proportions of toluene to carbon tetrachloride.

	% . Carbon		Flash	point	
% Toluene	tetrachloride	of original			6 evaporation
80	20	15°C, or	59° F.	50	C. or 41° F.
70	30	24	75	12	54
60	40	above 30 above	86	ahove 30	ahove 86

The table illustrates the type of change that takes place when a non-inflammable liquid is mixed with a higher boiling inflammable liquid. As partial evaporation occurs the lower boiling liquid evaporates faster and the flash point of the residue becomes lower. A practical point in this connection relates not only to the liquid itself but to the garment being cleaned, since a fabric which has been saturated with such a mixture becomes inflammable when partially dry. Since toluene has a higher boiling point than benzene it takes less of the non-inflammable liquid carbon tetrachloride, to give a flash point above the 80° F. minimum, namely 40 parts of carbon tetrachloride to 60 parts of toluene. This proportion shows a favorable rate of evaporation.

Many other fluids besides those mentioned are used, including chloroform, acetone, turpentine, carbon disulfide, ethyl alcohol, ethyl ether, etc. Some of these have special solvent action such as turpentine for paint, carbon disulfide for rubber, chloroform for waxes and resins and so on. Chloroform dissolves celanese silk and therefore must not be used on this type of rayon. In general, these liquids are not sold as cleaners to the retail trade but are used as spotting fluids by the professional cleaner, or possibly for blending purposes in cleaning fluids. Some of them evaporate very rapidly, ether in particular, and it would therfore be unsatisfactory for the housewife to use.

Properties and Cautions in Use

A LL of these organic liquids are volatile and there-fore more or less toxic if used in a closed room. It is just as well to warn the consumer to work with these fluids in a well ventilated space. The solvents all have their own odors and the reaction to them is more or less a question of the individual. Some people dislike an odor merely because it is strange or unfamiliar, such as the odor of carbon tetrachloride, while others will find no objection to it. Many people object to the odor of naphtha. Various manufacturers add small amounts of perfuming materials to cover up the original odor. Covering odors are not particularly successful with this type of product, however, as the perfume fraction tends to disappear or to fail to mask the objectionable odor, unless the odors blend well. As for residual odor after cleaning, this is controlled to a certain extent by the rate of evaporation. A successful cleanser should evaporate completely in an hour or so. On the other hand, it should not evaporate so rapidly that the user does not have time to manipulate it.

Frequently damage claims arise where the user of the fabric cleaner claims that it "spoiled a new dress." As a matter of fact, dyes will ordinarily not be affected. If they are, it is the fault of the dyestuff rather than the cleanser. Silk is sometimes finished with an oil as softening agent. Since dry cleaning fluids are fat solvents, they will remove such oil. When applied to a single spot on this type of finish, a lighter colored area at this point may be the result. The only way of guarding against this is to advise the user to try the cleanser first on a portion of the fabric where it does not show. Another reason that lighter colored places appear in spot removal at home is that very often the garment is already generally soiled, but this soil doesn't show up until a clean spot is made in removing a prominent stain. The weighting in silk is not affected by cleaners. It is usually tin, occasionally lead, and neither of these will dissolve in fabric cleanser.

Whether a "ring" is left after spot removal depends more on how the fluid is applied than it does on the nature of the liquid. If absorbent material is place beneath the soiled spot to catch the soil as it is deposited from the solvent, the chances of ring formation are considerably reduced. Again, if the garment as a whole is soiled, a clean spot or ring is sure to show. Of course even this can be shaded off more or less gradually by rubbing out from the center of the spot with diminishing pressure after the soil has been removed. If a clean pad of cloth is not placed beneath the spot when it is cleaned, the solvent merely picks up the soil and spreads it out over a larger area, redepositing it as the liquid evaporates. The best protection against damage claims is to apply a due amount of caution in formulating a label. When you say the product "will not harm the most delicate fabrics" or "will not leave a ring," you can always add, "if properly applied."

Rug and Upholstery Cleaners

A T one time upholstery cleaning fluids were simply fabric cleaners put up in a larger can and with a different label. More recently a flood of upholstery and rug cleaners have appeared on the market which are used with water. Some manufacturers put out two products, in the case of the rug cleaner, saying it can also be used for upholstery; and in the case of the upholstery cleaner, saying it can also be used for rugs. Sometimes the two products are the same and sometimes they are not. In general greater concentrations of detergent are used for rugs than for upholstery. Sometimes the manufacturer becomes very specific and recommends his product for cleaning upholstered furniture, automobile upholstery, overcoats, velours, linens, silks, woolens, mohair, carpets, rugs, tapestries, draperies, and all heavy materials.

This type of cleaner is sold in powder paste and liquid form. It consists essentially of soap or a soap substitute, which is why it can be used with water. One product is rather amusing because the directions on it say to dissolve a package of fine soap flakes and then add a few tablespoonfuls of rug cleaner. In other words, make a soap solution and then add a little liquid soap. The products are often colored, for example, cream, amber or red.

Rug cleaners usually contain an alkaline salt in addition to soap. The principal salts used are trisodium phosphate, soda ash, and borax. The soap, if liquid, may be a potassium or ammonium soap. Ammonium soap is used quite extensively as ammonia tends to brighten the colors on fabrics. For colors adversely affected by high alkalinity, borax is used as a builder. Paste products have some sodium soap added to make them gel. The powders are mixtures of powdered soap and alkaline salts. The liquid cleaners sometimes contain small amounts of organic solvent. Some now on the market contain ether. The amount present is less than the amount which would be soluble in water. This is more than one might suspect, as water will dissolve 7.3 per cent of ether at 20° C., although we usually think of ether and water as being completely immiscible liquids.

The customary advice in using these products is to clean with the suds or foam only, not with the solution. Sometimes the purchaser is told to apply the foam with (Turn to Page 67)



Many millions of dollars are represented in the goodwill of well-known American trade-marks.

What to do about that

TRADE-MARK

By E. E. ALLWINE

Lancaster, Allwine & Rommel

EFORE going to the expense of adopting a trademark, only to find that it has already been registered by another, it behooves any manufacturer to consider the trade-marks in his field very carefully. Early mistakes may lead to heavy and unnecessary expense at a later date. This is the experience of not only small companies but of some of the largest manufacturing organizations in the land. The manufacturer should approach his problem, not by simply ascertaining if the word (or words) or design, or a combination of words and design he has in mind, has been registered, but whether the trade-mark might be considered confusingly or deceptively similar to another. For example, "Slices O' Gold" was held deceptively similar to "Sunset Gold" for canned fruit by the Court of Customs and Patent Appeals in a case involving Sutter Packing Co. and Piggly-Wiggly Corporation.

The reader will note that the "date of registration" of every registered trade-mark is subsequent to the "date of first use." One cannot apply in the United States Patent Office for the registration of a trade-mark to be used at a later date. Not only must the trade-mark actually have been used upon the goods, but there must have been at least one interstate or foreign sale of the goods before registration can be sought.

It will be noted that many trade-marks were registered prior to 1905. These were registered under the Trade-Mark Act of 1881. In 1905, Congress passed an act, commonly known as the "Act of February 20, 1905," and the majority of trade-marks are registered at this time under that act. As set out by the Department of Commerce in the pamphlet entitled General Information About Trade-Marks, Prints and Labels, "Registration under the Act of February 20, 1905, gives prima facie evidence of ownership, the right to sue in the United States courts with increase of damages and destrucion of infringers' labels, etc., together with the right to prevent importation of goods bearing an infringing mark."

Any mark which had been in actual and exclusive use as a trade-mark by the applicant during the ten years next preceding the date of the Act of February 20, 1905, could be registered under that act, but, aside from this, no mark could be registered if the mark consisted merely of the name of an individual, firm, corporation, or asso-

ciation (unless it were written or printed in a particular or distinctive manner, or in association with the portrait of the individual), or if it consisted of words or devices descriptive of the goods, or if it consisted of a geographical name or term. Such marks as are not registrable under the Act of February 20, 1905, however, can be registered under a later act, commonly known as the "Act of March 19, 1920," after the mark has been in actual and exclusive use in interstate commerce for at least a year. Registration under the Act of 1920 does not give prima facie evidence of ownership, but does give the right to sue in the Federal courts.

Trade-mark registrations were granted under the Act of 1881 for a term of 30 years and under the Acts of 1905 and 1920 for a term of 20 years. Under both of the Acts of 1905 and 1920, registrations are renewable within six months next preceding the end of the original term or any renewal thereof.

What Not to Select As a Trade-Mark

SINCE registration under the Act of February 20, 1905 affords the best protection, one should not select as a trade-mark:

(A) Names of individuals, firms, corporations, associations, cities, countries, and the like.

(B) Words (English and foreign) descriptive of the goods.

(C) Misspelled or phonetically descriptive words.

(D) Words which would lead the purchaser to think he was getting something he is not getting.

(E) Words lacking in originality.

In any event, a trade-mark cannot be registered if it contains the flag or coat of arms or other insignia of the United States, of a foreign country, or of any of the states or municipalities of the United States. Neither can names or emblems of fraternal organizations be registered. No portrait of a living person can be registered without his written consent.

While one should not ordinarily select a trade-mark for his goods that is deceptively similar to a registered trade-mark for the same or like goods, yet in the event the registered mark has been abandoned and such abandonment can be proven by the second applicant, it is possible to re-register the mark in the name of the second applicant.

Value of Trade-Mark Registration

A REGISTERED trade-mark may become one of the most valuable assets of a concern, and may be sold or assigned, but only in connection with the goodwill of the business to which it pertains. Summing up the advantages and benefits of Federal registration under the Act of February 20, 1905, the owner of the mark:

(A) Has Federal recognition of prima facie evidence of ownership of the same.

(B) Has the right to sue in the Federal courts for the destruction of infringers' labels, etc.

(C) Has the right to sue in the Federal courts to enjoin infringement of the mark.

"A trade-mark is a distinctive word, emblem, symbol, or device, or a combination of these, used on goods actually sold in commerce to indicate or identify the manufacturer or seller of the goods."—General Information About Trade-Marks, Prints and Labels, U. S. Department of Commerce.

(D) Has the right, on complying with regulations of the Treasury Department of the United States and filing there a certified copy of his registered mark, to require the collectors of customs to prohibit importation of foreign goods copying or simulating the mark.

(E) Has the right to sue in the Federal courts with increase of damages.

(F) Has laid the foundation for registration in foreign countries, since nearly all foreign countries require registration of the mark in the applicant's home country before it may be registered in their country.

(G) Has laid the foundation for protection against unfair competition.

Those adopting a trade-mark are cautioned against marking their goods "Registered in the U. S. Patent Office" or "Reg. U. S. Pat. Off." Only after the certificate of trade-mark registration has been duly granted should this appear on the goods in connection with the mark.

All preliminary data concerning the first use of a trade-mark, such as samples of labels bearing the mark, printers' invoices covering charges for printing the labels, representative orders referring to the goods by the trade-mark name, and periodicals displaying advertisement containing the mark, should be carefully preserved. A representative file of all periodicals in which the trade-marked goods are advertised, from the first appearance of the mark and extending over the entire period of its use, should also be kept.

A further caution, of much weight, is that owners of registered trade-marks should not make alterations in the wording or design, until they have consulted their patent or trade-mark attorney. This does not apply to the label as a whole, but only to the trade-mark itself.

Trade-Mark Registration Procedure

AFTER the applicant for a trade-mark registration has complied with the Patent Office rules with respect to the form of his application, has furnished a drawing of the trade-mark, executed according to well-defined rules, and has furnished five specimens or facsimiles of the mark as actually in use on the goods, the Government Examiners will determine the registrability of the trade-mark. The wise applicant will have had the trade-mark records searched beforehand to determine this to his own satisfaction. If the application under the Act of February 20, 1905, is found allowable, the applicant is notified,—but before registration will be granted, the mark must first be published in the Official Gazette of the Patent Office. Within thirty days after such publication,

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The new package of "Swish" emphasizes speed by the lettering as well as the name itself. The new Stain Remover is more attractive does away with the meaningless word "Rustine" and employs a convenient nozzle for its use.

NEW PRODUCTS A Few Hints on Their Development

PART III

By RALPH H. AUCH

Chief Chemist, Zanol Products Co.

HEN a product which is to be packaged, can be offered in either or two types of containers, it may prove helpful to set down the advantages of each and weigh them, one against the other. For example, the manufacturer of a well-known shaving cream brought the product out in a jar and offered it only in this container for a long time. Finally, admitting his error, he offered it in a tube as well, and by way of introduction, staged a national contest on the relative popularity.

Even though the jar was much the tube's senior on the market, and doubtlessly many who bought the jar did so from force of habit, or did not even know the shaving cream was available in a tube,—"the tube just nosed out the jar in sales." The published sales figures were (believe it or not) 1,338,536 tubes against 1,328,827 for the jars. And the maker continues to market both the jar and the tube.

Possibly if they had set the merits of each down, side by side, and weighed them, the shaving cream might have made its original debut in a tube. Had they done this, the comparison probably would have been along the following lines:

Tube

- 1. Not necessary to form new buying habit because it is the prevalent type on the market.
- Must be specially made and price fluctuates widely with the tin metal market.
 No label or labeling operation required.
- 4. Lighter weight per gross so cheaper shipping container of light construction can be used. Carriage charges are lower.
- 5. No breakage. Comparatively small loss due to damage in handling or transit
- 6. More convenient for trav-

Jar

- 1. Much easier to exaggerate the size of container.
- Unless a private mold is chosen, jars are available from stock in any quantity at any time.
- 3. Not linked with a definite price, so any reasonable price can be fixed.
- 4. Equally as pleasing to the eye when almost used up as when new and full.

If the type of container contemplated is different than the one generally used for competing products, as in the case above, the following question should be satisfac-



The family idea in package design is usually safe and effective. Here we have three specialties which take advantage of the uniform design and color scheme already associated with the name and trade-mark of the manufacturer. The cans in this case happen to be equipped with the new Amerseal nozzle and cap.

torily answered before the final choice is made. Which is the greater, the sales impetus given the product by the more pleasing or more convenient container, or the sales resistance offered by this dissimilarity?

Another important question is—can a sample size be produced that approximates the full size container in appearance, or that is a replica of it? Only in this way can full advantage be taken of the sales impetus this gives the product by reason of it impressing the appearance of the regular size on the recipients of the samples.

The production man should sit in when the final choice is made. It is he who comes in for criticism aplenty, when the new item is put into production if the packaging costs are excessive, if breakage in process or in transit is unusually high, or if leakage, drying out, or dusting occurs. It is he alone who can suggest a minor change in shape or dimension so that a filling, labeling, cartoning, or other machine already available can be utilized, instead of requiring the purchase and installation of a new one.

All these things should be given due consideration so they may serve as guides to an intelligent, and a not to be regretted and subsequently changed, choice. And in last analysis, the container must, above all, be practical. If it is to contain a powder, it must not dust; if it is to contain anything that will spill when overturned, it must rest firmly on its bottom; if it is to contain a liquid, it must not leak; and if it is to contain a product that dries out or deteriorates on continued exposure, it must reseal readily and securely.

The increased speed of trains and jolting of inter-city door to door trucks requires that containers and shipping containers as well stand up under constantly harder usage in transit. Costly inventories of display containers have been disposed of as waste paper and a fresh attempt made because they wouldn't stand the gaff—from manufacturer, to jobber, to dealer.

On the other hand, manufacturers are sometimes too obstinate to admit their error in packaging and won't do

something about it. The extent to which their good will suffers as a result thereof is lamentable.

Size of Container

THE size of the container should be determined, with rare exceptions, not by the cost of the ingredients entering into the formula of the product, but by the number of applications it is desired to give per package. Otherwise, why put liquid nail polish for the manicure in ½ or ½ ounce bottles and lacquer of very similar composition in pint and quart cans for the home tinkerer? Or, closer home, four to six ounces is the usual size shampoo for the individual and quarts and gallons for the beauty operator.

To put it the way this writer did in the brushless shave discussion in these columns, the cost of a little more or less bulk is so relatively small that the size should be one which brings the consumer back for the next package as soon as the manufacturer concludes that he desires or dares to bring him or her back.

Several methods of determining the correct size are workable. The simplest way, where time permits, is to supply the contemplated size to the group of testers with a request on the questionnaire to state how long the package lasts or the number of applications obtained.

A way that involves no waiting until the package is consumed is to weigh a package accurately and have different individuals withdraw the quantity each would normally use per application. The difference in the weight of the package divided by the number of users gives the average quantity consumed per application. This figure divided into the net contents of the contemplated size container gives the average number of applications. Taking the average number of applications. Taking the average number of applications and the average frequency with which it will likely be used, the length of time the package will last may be gauged.

If manufacturers generally followed this simple procedure, they would frequently make their containers larger or smaller than the commercial packages in general use, instead of being guided by competition. In fact, to cite examples, brushless shaves and cleansing creams would unquestionably be larger, while underarm deodorants and silver creams would be smaller.

However, draw conclusions slowly and only after wide tests, as some individuals instinctively use a preparation quite sparingly, while others are very wasteful regardless of whether they are paying for any product in question or not.

Fill That Container!

HATEVER size container is finally chosen—fill it. To the manufacturer slack filling a jar, a tube, a can, or a carton it means perhaps a fraction of an ounce; a small fraction of a penny. To the average consumer it means being short changed, cheated or something. Whatever that something is it is an unfavorable reaction, just so much sales resistance to the purchase of the next package.

No detail should be overlooked. For example, if the container is a collapsible tube look to the aperture size. A large aperture encourages freer use-brings the consumer back sooner. Accurate measurement of the ribbon, triangular and round apertures of sixteen brands of tooth paste showed openings varying from 9.5 to 45 square millimeters, in cross section. And one maker puts a 10 square millimeter opening in his small size and a 24 square millimeter in his large size. Who and which is right?

Line up commercial shaving creams, show creams, toilet creams, back off the cap and look in the business end. It will be a revelation. The plain shaving cream of one manufacturer carries a larger opening than his mentholated one. Is it worthy of consideration? A mere detail admittedly, but not an inconsequential one. These are typical of the oversights in the items named.

Trade-Name and Trade-Mark

THE importance of a wise choice of both trade-name and trade-mark cannot be over emphasized. The trade-name chosen should be easy to spell, easy to pronounce, easy to remember and hard to confuse with competing products.

Unfortunately, the discussion that follows requires that the "horrible examples" cited have to be referred to by name since generalities would carry little weight. Needless to say they are not cited to cause offense but to emphasize this very important point. "Baume Bengue Analgesic Balm" was on the market many years before it was changed to the more sensible "Balm Ben-Gav."

"Brownatone" is a widely distributed hair coloring. The name is okay for the formerly brown-haired prospects to restore their graying locks. What is the reaction however of any woman who wants to restore her gray crowning glory to its original black or titian or blonde shade? It is reasonable to conclude that the same product with a better name would enjoy greater consumer acceptance.

"Molle" the brushless shaving cream sees fit to bracket "Mo-Lay" directly under its trade-name. Since either word is after all a coined one and becomes only what the merchandizer makes it anyway, why not call it Mo-Lay in the first place? "Lather Kreem," "Barbasol" and "Burma-Shave" with suggestive, easy-to-pronounce and hard-to-muff names, labor under no such handicap.

"Kutol" wall paper cleaner hurried to put "pronounced Cut-All" under its trade-name. A similar case is "Vauv" -the cream for shiny nose. This word was coined by putting "V" before and after the two first letters of the writer's surname. It was not long until like Molle it was necessary to bracket "Vove" under the trade-name to insure correct pronunciation. Easy and correct pronunciation is imperative, for without it the buying public is hesitant about asking for a product in busy retail

"Pond's Extract Company's Cold Cream" and their vanishing cream have been aggressively merchandised for years and have won acceptance in spite of the two possessives in the name. It would appear that "Extract Company's" is confusing extra baggage. The consuming public was a house divided on the correct pronunciation "Pebeco," "Kolynos" and "Ipana" until the radio



The three new products compared to the old are not only typical of progress in package design, but are good examples of size exaggeration possibilities.

announcer with his faultless enunciation and pronunciation stepped into the breach and by countless repetitions of the names got them over to some extent. "Drift" came out under excellent sponsorship only to be changed subsequently to "Dreft." Likewise, Vick's Nose and Throat Drops was changed to "Va-tro-nol." Earlier "Lux in Toilet Form" was equally quick to change to "Lux Toilet Soap."

The expense of such changes might easily run into six fixures, while the confusion and sales resistance on the part of the consumer cannot be estimated. Literally scores of other cases might be cited but it is hoped the above will throw its scare and make anyone, in the throes of making a choice, doubly wary.

Trade-Mark Important

THE trade-mark should be selected with equal care. The girl on the "Danderine" bottle is a bit outmoded. The Smith Brothers hirsute growth today is as unbecoming as is Mr. Woodbury's or Mr. Mennen's handle-bar moustache. Dr. Sloan is not groomed 1935 and looks rather seedy as he beams from his liniment bottle. Dr. Lyon's girl friend's hair needs brushing, but she isn't likely to sell much tooth powder for him whether her hair is groomed or unkempt.

And so on and on. But to sum up, faces and figures had best be left in the family album and not put on containers, cartons and wrappers. The attire that makes 'em turn to look today makes 'em raise their eyebrows to-morrow. The trade-mark should be simple in design, devoid of script and Old English lettering, for example, so that a logotype will reproduce clearly on the commonest carton board and cheapest newsprint. Here again it is necessary to call a halt otherwise one would again go on and on.

After the decision is finally made it should be checked for conflict with any registered trade-mark. Someone in Petoskey or Paducah might be using that "carefully chosen clever name" lo these many years. He is usually shrewd enough not to bob up and assert his rights until the aggressive company that has adopted the trade-mark is in too deep to back out. Results! Either money passes hands, litigation gets it, or at least the party of the second part has the jitters for a protracted period until his path is clear again.

Is The Product Properly Dressed?

NO ONE outside the know can say whether "Camay" is satisfied with its third packaging attempt, or whether it will have still another new dress soon. Anyway, far too many products come to market all dressed up only to be subsequently changed. What a pity! The package not only serves as a practical, convenient container for the product, but it can be made to provide a means for remembering the product and remembering it favorably (or unfavorably). It can be made to tie in beautifully with the manufacturer's other packages. Then, of course, like an ugly step-child, it can be and is only too frequently developed with an utter disregard

for other members of the family, i.e., other products in the line, or those that may come in the future.

A number of products have become nationally and even internationally popular without being fully dressed. That is to say, they are not enclosed in individual cartons. Talcum bottles and tins are rarely, if ever, enclosed in cartons, it is true, but these were not in mind. The magenta colored underarm deodorant in the vase shaped bottle is perhaps the outstanding example. At the other extreme is that well-known laxative water with the red devil prominently displayed on the label. The former is a striking package, while the latter is certainly quite ordinary if not repulsive.

If the container is one such as many bath salts and body powder jars that has a practical use in the boudoir or in the home after the contents have been consumed, it is perhaps well not to enclose it in an individual carton. Then, too, if the container is so beautiful or striking that the temptation to reproduce it on the carton is irresistible, then certainly no carton should be used.

Many advantages attend putting the container in an individual carton, however, whether it be a cheap folding carton, an inexpensive set up box, or in keeping with the retail price of the product a costly, elaborate, satin-lined hinged box. Of greatest importance is that the carton permits the use of a folder or booklet as an enclosure. Thus, very complete instructions for use of the product can be given or beauty helps and hints in considerably detail can be offered. Likewise, a brochure that explains the merits of the product itself or one of advertising nature describing the manufacturer's other products may be enclosed.

In any case, if the individual carton is in keeping with the product and if it is in good taste it can lend caste and dignity to the completed package. A lesson can be learned from the jeweler who can take a dime store string of beads, dress them up neatly and appropriately in an attractive box and make them look worth a dollar of anybody's money. Likewise, the haberdasher knows his stuff. He spends money pretty freely for boxes for mere man's socks, ties and sweaters for gift purposes.

The selection of a suitable carton or box for both appropriateness and attractiveness can be made a simple matter. Again, as with the formula itself, the opinion of the mere men of the organization should not be depended upon. This comment doesn't go of course if the product is a shaving cream, after shave lotion or other product prepared for the sterner sex. Nor should the opinions of the women in the organization, in the family, or in the circle of friends and acquaintances be given undue weight.

Invite Criticism

PACKAGES of competitive products may be collected. They may be stood up in a row and women of good taste invited to look them over and pick out the packages they feel are most pleasing and attractive. As in the questionnaire discussed earlier, it is important not to make any suggestions or express any personal opinions.

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Shampoo Powders

HAMPOO powders commonly consist of mixtures of powdered soap, alkali, and perfume. In selecting a soap, coconut oil has the merit of giving a showy lather, but the amount should be limited because of its tendency to irritate the scalp. Suitable alkalies are dry sodium carbonate, sodium sesquicarbonate, and borax. Ammonium carbonate is unsuitable on account of its odor, crystallized sodium carbonate owing to its tendency to effloresce, and potassium carbonate because it is hygroscopic. The alkalies serve to saponify the oil on the hair and tend to prevent precipitation of the soap in hard water.

Low-grade shampoo powders consist of high proportions of cheap alkali, usually in the form of modified soda, compounded with low proportions of soap. Such shampoos are naturally very harsh. A good shampoo powder should contain about 40 to 50 per cent of soap, plus 10 to 20 per cent of borax. The balance may be sodium sesquicarbonate, whose action is much milder than that of the carbonate.

The following is a formula for a high-grade product. It can be varied almost indefinitely.

Castile soap, powdered	by Weight
Coconut oil soap, powdered	10
Sodium sesquicarbonate	 45
Borax	 10
Perfume to suit	

If the materials are purchased in powdered form, manufacture reduces itself to the two simple operations of perfuming and mixing. The perfume is best incorporated by rubbing it up with part of the borax. A mixing machine dôes the rest.

Frequently an acid rinse is packaged with the shampoo powder. This is a little packet of citric or tartaric acid crystals, to be dissolved in water and used after the shampoo. Such a rinse has a brightening effect on the hair.

There is a good demand for henna shampoo powders, which are used to "bring out" the reddish tints in the hair. These powders are made by incorporating a small percentage of powdered henna with the ingredients already mentioned; 5 to 10 per cent represents the usual proportions. Henna is a well known substantive dye for keratin. It is obtained from the powdered leaves of Lawsonia inermis L. The tinctorial properties are due to the presence of lawsone.

Chamomile is a blonde hair dye, although when incorporated in a shampoo, its action is very slight. There are a number of herbs to which the name chamomile is applied, and of these the dried florets of two are articles of commerce. These are Anthemis nobilis L. or Roman chamomile and Matricaria Chamomilla L. or German chamomile. They are both effective. The latter, which is cheaper, is probably the better for use in shampoo

powders. The tinctorial properties are attributed to apigenin. The powdered florets may be used in the same way as henna, about 5 per cent being the usual proportion in a shampoo powder.

A formula for a powder containing a fatty alcohol sulfate is as follows:

	Parts	by Weight
Castile soap, powdered		35
Coconut oil soap, powdered		8
Technical sodium lauryl sulfate		22
Sodium sesquicarbonate		35

Powdered henna and chamomile can be incorporated in exactly the same way as in the other powders. H. Stanley Redgrove. The Manufacturing Chemist 6, 188-91 (1935).

Ivory Crescent is the name of a new house publication for the employes of the Ivorydale and St. Bernard factories of the Procter & Gamble Co. The first issue was published in July, and it will be issued quarterly thereafter. Frances Kirkpatrick is the editor with C. J. Fahnle as Ivorydale editor and W. W. Blaesi as St. Bernard editor. The cover of the first issue is blue and white with a crescent and star design, the motif of the P & G trade mark. The issue is an exceptionally fine printing job and is well illustrated. Among others, it contains articles on the production of coconut oil and the history of Grandma's Powdered Soap, one of the oldest Globe brands.

The Russian Government has announced that the Tejé (Soap and Perfume Trust) experimental factory at Moscow has produced the first 54 kilograms of Soviet coumarin. This synthetic product has successfully passed the tests of the perfumery and tobacco industries. It is produced from chloroform.

Importation into France of olein, stearin, oleic acid, stearic acid, candles and elimentary vegetable fats has been prohibited by governmental decree. The new law also provides that quantities of raw materials to be permitted importation for use by fat consuming industries may also be fixed by decree.

DOES LIQUID SOAP DETERIORATE?

Does liquid soap improve or deteriorate with age? What are the causes of rancidity in liquid soap and how can they be avoided? What about hydrolysis in liquid soaps? And the part which raw materials play? Read "Deterioration Problems in Liquid Soaps," by Harold Silman in an early issue of SOAP!



Two companion products of the Nestle-Lemur Company, liquid shampoo and waveset. The shampoo bottle has small dispensing top, the waveset a one-inch mouth. Bottles made by the General Glass Company. The closures are Amerseals.



New Products



A newly designed five gallon pour-pail for Sinclair Stock Spray of the Sinclair Refining Company. Lithographed in bright red and green. Container designed and manufactured by Wilson & Bennett Manufacturing Company of Chicago.

To eith Fi of Si

Two new containers this season in which the United Drug Company of Boston is packaging its paradichlorbenzene crystals for moth use. Elkay's Moth Fume Crystals in friction-top can and special vaporizing drum, both in orange, blue and white.

and Packages



One of the most striking containers for a radiator cleaning compound by the Texas Company. In red and green. Unique with a green moulded plastic closure by Anchor Cap. Can of Texaco's own make.

Three of the best-known brands of insect powder in the containers new this season in which they now appear on the market. Fly-Ded by Midway Chemical of Chicago, Flit Powder by Stanco, Inc., New York, and Bee Brand by McCormick & Co., Baltimore. Cans by American Can.



Boots White Shoe Cleaner, repackaged this year in contrasting black and white with non-slip bottle by Owens-Illinois, who also designed the carton and label as well. Topped with a plain black Caseal Cap. Product manufactured by the Gloss Laboratories of Cleveland.



Wacation! in 20 years

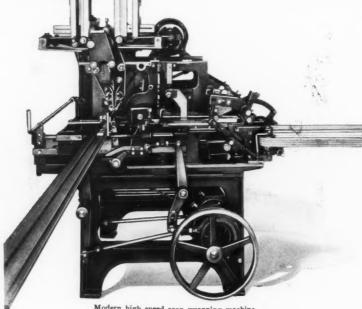
Many of our wrapping machines have been on the job steadily for 20 years or more-and are still going strong. They simply won't quit. We build our machines that

wav. This sturdy endurance assures dependable service, so important

in the wrapping end of a business.

Nevertheless, it may not pay to keep these loval oldtimers in the harness too long . . . Not when new machines offer such important advantages in both savings and the ability to produce new and outstanding types of packages-packages that help to make goods move.

We are constantly developing new machines to meet modern production requirements. Nearly all of them are adjustable for various sizes. . . . They are built to handle the many new and attractive kinds of wrapping material that have been developed in recent years. . . . They operate at high speeds, thus giving utmost production at lowest cost. And they are extremely economical in their consumption of wrapping material. Some models use



Modern high speed soap wrapping machine

printed material - both transparent and opaque-in roll form, registering the printed

design on the package by an Electric Eye.

Get the benefit of our ideas. We will be glad to suggest definite ideas for improving your package and lowering your costs. Our experience dates from the time machines were first introduced to replace hand-wrapping.

Write to our nearest office.

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Over 200 Million Packages per day are wrapped on our Machines

METAPHOSPHATE IN LAUNDRY PRACTICE

Sodium hexametaphosphate gives a faintly acid reaction, i.e., a 0.25 per cent solution has a pH value of about 5.5. The form sold commercially in the U. S. contains about 10 per cent tetrasodium pyrophosphate, which brings the pH value in the same concentration up to 7.2, or practical neutrality. In studying aqueous solutions of metaphosphate, hydrolysis to pyro- or orthophosphate interferes to a large extent. Approximate figures for the rate of hydrolysis indicate that in 25 per cent solutions at ordinary temperatures, the rate is 10 per rent per month, but in 2 per cent solutions maintained at the boiling point at pH 9.6, 33 per cent hydrolysis occurs in 5 hours.

An important application of metaphosphate is its use in laundry and textile works to dissolve lime soaps or to prevent their precipitation. Sodium metaphosphate, even when it contains 10-15 per cent of tetrasodium pyrophosphate, is not sufficiently alkaline for use in soap, so that it is buffered with soda ash to give a pH of 8.3 in 0.25 per cent solution. This buffered metaphosphate is made up into stock solutions of 25 per cent concentration and can then be easily introduced into washing machines. In general practice it is used in the boil or in the first rinse.

The quantity necessary depends on the hardness of the water and to a certain extent on the type of soap used. It is approximately 1.25 ounces per 100 gallons per degree of water-hardness, when ordinary laundry soaps are used. This amount needs to be increased considerably at high pH values, presumably owing to the lowered solubility of the calcium soaps. When the alkalinity of the final washing medium in the boil is too high, as when large quantities of soda ash are employed, it is more economical to use the metaphosphate in the first rinse, where it removes lime soaps carried forward from the washing operation. At the same time the machines themselves are gradually freed of their lime soap deposits, but for economy it is desirable to clean the machines before metaphosphate is used, if deposits are excessive.

As the efficiency of metaphosphate in dealing with lime soaps rises as the temperature is increased, it is preferably used at temperatures not lower than 60° C., although the action occurs at ordinary temperatures when the excess of metaphosphate is sufficient. Use of metaphosphate improves the color of the clothes and reduces the amount of re-wash necessary.

In textile works, the applications are similar in type, as in the scouring of wool. In the kier boiling of cotton, the dissolving action on calcium pectate causes improvement in the dyeing processes. Its use is of benefit in the de-gumming of silk. Conditions vary so widely from one type of work to another that it is impossible to generalize as to the methods to be employed. It is not likely to be economical in those processes in which magnesium or barium salts are added to the solutions, until the stage where the major portion of these salts has been removed

in rinsing. Textile works usually prefer to buffer sodium metaphosphate to the degree suited to their own requirements.

Sodium metaphosphate is also used as a conditioning agent in the after-treatment of boiler-feed water. It can be used in household preparations for washing purposes, and in shampoos. In the latter case it is even used without soap. It is a useful ingredient in dish-washing compounds. C. W. Tod. The Industrial Chemist 11, 270-2 (1935).

BENTONITE IN ENGLISH SOAPS

New uses for bentonite have been attracting attention in England during the past year or two. One of the more important applications now seems to be in soapmaking. Bentonite is sometimes called "mineral soap," as it has pronounced detergent properties, although it does not lather. It may, however, form part of, or replace, oils and fats in the normal fat charge to the extent of 25-50 per cent, and several cleansing preparations containing bentonite are now on the market, says a report from London. Bentonite consists mainly of silica and alumina. Its unusual colloidal properties in water are doubtless mainly due to the extreme fineness of its particles.

For some textile purposes and also for certain laundering processes it is held to be superior to alkali such as soda ash, and it certainly imparts, even to high-grade toilet soaps, an improved texture and softer and smoother surface. Like other forms of colloidal clay it is said to improve the detergent power of the soap in which it is incorporated. In addition, it promotes emulsification and probably has water-softening properties.

J. C. Ackerman, Pittsburgh, Pa., chemicals, oils and specialties, has recently been appointed distributor in western Pennsylvania for the alcohol division of Carbide & Carbon Chemicals Corp., New York. Mr. Ackerman also represents John Powell & Co., New York, and Warner Chemical Co., New York, in that area. Among other products he will feature a new anti-freeze product during the 1935-1936 winter season. It will be sold under the name "Winter-Flo".

The index of employment in the soap industry in June, 1935, registered 99.5 as compared with 98.2 in May and 99.9 a year ago in June. The pay-roll index for June, 1935, was 95.8 as compared with 93.8 in May and 86.0 for June, 1934. All figures are based on 100 as the average for the three years, 1923-1925.

The radio show of Lever Bros. Co. has recently been moved from its Sunday afternoon position on the Columbia Broadcasting program to the Monday evening position. For some time the company has been seeking an evening hour for its program. The change is expected to add several million more listeners.

DEBATE CHANGES IN ROSIN GRADES

A series of proposals for change in the official color standards for rosin was the subject of discussion at a meeting in Washington, July 16, attended by representatives of rosin producers and users. Four principal changes are under consideration: to change the color composition of the present standards so that they more nearly conform with the light-transmission qualities of actual rosin; to make mechanical changes in the glass standards themselves so that they will be more serviceable, easier to keep clean, etc.; to effect a more orderly division of the color scale among the various grades; and to reduce the number of grades.

The first three proposals met with favorable reception from both producers and users of rosin at the hearing before W. D. Campbell, chief of the U. S. Food and Drug Administration, and F. P. Veitch and Brooks Brice, of the naval stores division. The proposal to reduce the number of grades was opposed, however, by the Gum Turpentine and Rosin Marketing Agreement and License Committee. C. F. Speh, secretary of the committee, opposed reduction from thirteen to eight grades, and said that instead consideration should be given to adding an additional paler grade. Favoring the opposing view, G. G. Sward of the National Paint, Varnish and Lacquer Association stated that members of this association were satisfied that eight grades were sufficient.

If any action is taken as a result of the hearing it will not be before the middle of August, as it was stated that thirty days would be allowed for submission of further evidence or suggestions. All arguments will be given consideration by the Food and Drug Administration before announcement of its decision.

Charles L. Huisking, head of Chas. L. Huisking & Co., New York, recently received from the Norwegian Government the decoration of Knighthood of the first class of the Order of St. Olav. Presentation of the award was made at the Norwegian Club in Brooklyn. It was made in recognition of Mr. Huisking's services in the interests of Norwegian-American trade relations, particularly in connection with his advancement of the sale of Norwegian codliver oil in America.

Arthur D. Little, internationally known research chemist and chemical engineer, died August 1 at his summer home at Northeast Harbor, Me., after a brief illness. Dr. Little, who was 71 years old, was a holder of the Perkin Medal, having received this award in 1931.

Zanol Products Co., Cincinnati, household specialties, has placed its advertising account with Matteson, Fogarty-Jordan Co., Chicago agency.

James Houlahan, in the advertising department of Lever Bros. Co., was married recently to Miss Marion Lyons, of Somerville, Mass.

CHICAGO TRADE NOTES

LEN OAK Country Club was the scene of the July 16th golf tournament of the Golf Auxiliary of the Chicago Drug and Chemical and Chicago Perfumery, Soap and Extract Associations. Over sixty members and guests participated. Prize-winning net scores were as follows: Class A—William Lowenstein, 71; John Bodevin, 72; Walter H. Jelly, 75; Class B—C. Curtis, 77; Charles O'Malley, 78; William Matura, 81; Class C—Kedzie Teller, 67; C. F. Henry, 81; Ed. Drach, 83. Guest prizes were won by J. Davis with 68 net and R. P. Gilkan with 69 net. Following the dinner plans were discussed for entertaining members of the team which the Detroit Association is sending over to play in the August 20th tournament at Bob-O-Link Country Club.

Although official confirmation has not been received, it is understood that the Holman Soap Company has obtained court approval for their plan of reorganization which was filed April 3rd. This reorganization, which is being carried out under 77-B, permits the present stockholders to retain control of the company with the understanding that no dividends are to be paid until all the old debts are cleared up. Under the reorganization plan all wages earned ninety days prior to the filing of the petition, taxes and secured claims are to be paid within one year. General and unsecured creditors are to be paid in four consecutive annual payments of 25 per cent each. The first of these latter payments must be made before the expiration of two years.

Frank Dedrick, perfumer at the Port Ivory plant of Procter and Gamble Company, spent his vacation in and around Chicago. While in Chicago he played in the July golf tournament of the Perfumers association at the Glen Oak Country Club.

James Kirby of F. W. Fitch Company, Des Moines shampoo manufacturers, died suddenly of heart disease last month. Mr. Kirby had served the Fitch organization for many years and was an important factor in building up the company's business to its present status.

Mr. and Mrs. Roy A. Winser, accompanied by their daughter, left early in August for an extensive motor trip through Canada. Mr. Winser is chief chemist of the Armour Soap Works.

The Henderson trophy competed for annually by members of the entertainment committee of the Perfume and Cosmetic Industry Association was won this year by Al C. Burgund of the Carr Lowrey Glass Co. The tournament took place again this year at the Pine Valley Golf Course in southern New Jersey. The winner a year ago was B. J. Gogarty of Commercial Solvents Corp.

A & P GOT \$8,000,000 REBATES

Rebates totaling over \$8,000,000, paid to the Great Atlantic & Pacific Tea Company by 343 manufacturers over the past year, were disclosed in the open hearings before the House Judiciary Committee last month during discussion of the Patman-Robinson price discrimination bill. The bill is being sponsored by the U. S. Wholesale Grocers' Association, whose president, J. H. McLaurin, bitterly attacked the practice of special discounts to chain stores, secret or otherwise. He stated that the substitute anti-discrimination bill proposed by the National-American Wholesale Grocers' Association would not be a satisfactory remedy, as it would not prevent the rebates, but would merely make it impossible to keep them secret. The N.A.W.G.A. bill was defended by M. L. Toulme, secretary of the organization sponsoring it, as being a practical and constitutional approach to the problems involved in restraining unfair trade practices.

Testimony before the House Judiciary Committee disclosed a long list of quantity discounts, advertising allowances and brokerage concessions. Included among the list were the following terms of various companies selling soaps, cleaners, polishes, insecticides, etc.:

B. T. Babbitt, line, quantity scale 15-80c per case. 7,500-17,500 (case)

Black Flag Co., insecticide, 121/2 % quantity.

Brillo Manufacturing Co. "Brillo", 10%. Climaline Co., "Climaline" & "Bowlene", \$11,000 per year with 5% adjustable.

Climax Cleaner Manufacturing Co., cleaner, 40c gross. Clorox Chemical, "Clorox", 5%

Colgate-Palmolive-Peet, line, "Palmolive" and "Octagon", 30c gross, others 15c a box.

Dif Corporation, "Dif" cleaner, 10%. Drackett Products Co., line, 5%.

J. Eavenson & Sons, Inc., soap, 30c per gross.

Fitzpatrick Bros., soaps, 3 to 5%, \$250,000 to \$400,000. Ford, J. B., cleaner, 30 to 50c per case on 5 to 25,000 cases.

Gem Products Sales Co., laundry powder, 5%.

Gold Dust Corporation, shoe polish, 66 to 84c per gross on \$5,000 to \$25,000 gross quantity, \$6,500 flat; soaps, 21/2 %.

Gorham & Co., polish, \$1,600 flat in merchandise.

Haskins Bros. & Co., soaps, 5%.

Hygienic Products, Sani Flush, \$15,000 flat, with adjustment to 71/2%.

Kirkman & Son, soap line, 10% per case.

Lever Bros., soap, \$275,000.

McCormick & Co., insecticide, 5%.

Manhattan Soap, soap, 10c per box.

Metal Textile Co., cleaner, \$2,000.

Mione Manufacturing, hand soap, polish, 25c per gross.

Naylee Chemical Co., bleach, 10%. Noxon, Inc., "Noxon" Polish, 10%.

Oakite Products, "Oakite," 5%. Prescott Co., J. L., cleaners, \$12,000 per year.

Procter & Gamble Dist. Co., soaps, 15c case; "Crisco," 4c per pound, plus \$61,000.

Skiddo Co., Inc., cleanser, 5%. Solarine Co., polish and cleanser, 5%.

S. O. S. Manufacturing Co., cleanser, \$4,125 per quarter.

Tumbler Laboratories, polish, 25c per dozen.

Vestal Chemical Co., floor wax, 10%.

White King Soap Co., soap, 5%.

Commenting on the list of discounts and allowances,

Paul S. Willis, president of the Associated Grocery Manufacturers of America, declared that the lists are meaningless unless accompanied by comparable lists showing the discounts given others. He called attention to the fact that many companies work on a graduating discount plan, and that those failing to earn the maximum discount receive a discount in one of the other brackets.



Prominent Mexican soap and supply men attended the National Convention of Lions at Mexico City July 22. In the photograph are F. Martinez, well-known soapmaker and perfumer of Chapala, Jal., Fernando de la Garza, representative of Fritzsche Brothers, Inc., New York, and member of the Mexico City Lion's Club; Jese Salcede, prominent dealer in soap materials of Mexico City; Jose Fernandez, organizer of the Lion's Club of Mexico City. In front are two Mexican girls dressed in the native costumes respectively of Jalisco and Tehuantepec as part of the convention.

P & G NET UP FOR YEAR

Procter & Gamble Co. reports net profit of \$19,120,324 for the year ended June 30, comparing with \$14,370,066 in the previous year. After setting aside \$4,000,000 for materials and products price equalization, there was a net profit of \$15,120,324 available for dividends, equal after preferred dividends to \$2.23 a share on 6,325,087 common shares. Gross sales for the year amounted to \$156,800,054, versus \$116,593,143 in the previous year, an increase of \$40,206,911 or 341/2 per cent. The company reported cash of \$5,728,511 and Government and marketable security holdings of \$7,102,260. Inventories were \$44,629,716. During the year there was a switch of more than \$11,000,000 from securities to inventories. Current assets totaled \$70,908,801 and current liabilities \$8,364,207.

SOAP PERFUME SPECIALS by SOAP PERFUME SPECIALISTS

Will 60 or 75 cents perfume 100 pounds of toilet soap? It will, *if* your perfume has been *specially* made by perfumers who have made a lifetime study of soap.

We have built up an entire department along those lines and invite your inquiries.

new

ROSE GARDENIA LILAC ORCHID JASMIN SANDAL BOUQUETS

Price range on above oils \$1.50 to \$4.00 per lb. All give adequate perfume results in ½% to 1% strength.

van Ameringen-Haebler, Inc. Aromatic Essentials

315 Fourth Avenue, New York 180 No. Wacker Drive, Chicago 438 West 48th St., Los Angeles 42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

PERSONAL AND IMPERSONAL

Soap & Chemical, Inc., Pittsburgh, Pa., manufacturers of dishwashing cleansers, scouring powders, disinfectants, etc., recently moved from 1419 Beaver Ave. to 319 Federal St.

Chester W. Dudley, Jr., has been appointed account representative on "Palmolive Soap" by Benton & Bowles, New York, advertising agents in charge of the account.

Jergens-Woodbury Sales Corp., Cincinnati, has been sponsoring Cornelia Otis Skinner in a series of radio monologues over the NBC network this summer, advertising "Jergens'" cosmetics.

John W. Block, founder of Blockson Chemical Co., Joliet, Ill., died last month at the age of sixty-eight. Mr. Blockson, a native of Russia, first began operations in the chemical field under the name of the Superior Chemical Co.

Best Chemical Co., Allentown, Pa., has recently been taken over by the Lehigh Whitehall Soap Co.

Iowa Soap Company, Burlington, Iowa, in anticipation of an enlarged advertising campaign, has appointed the Norenus Advertising Co., Chicago, Ill., in an intensive sales campaign that will embrace the entire middle-western territory.

The Certified Rug Cleaners Institute has been formed with offices at 254 West 31st Street, New York. The institute will carry on scientific research in rug cleaning and will conduct an advertising campaign in national magazines.

Shulton Incorporated, New York, has been licensed by Hoerle-Marks Inc., commercial representatives for Rose O'Neill, famous artist and creator of the popular Kewpies to manufacture a dusting powder-soap combination gift box featuring Kewpies and Miss O'Neill's new character "Scootles." This product will be available in September.

Christopher O. Moser, president of the Institute of American Fats and Oils, died last month in Washington, D. C., at the age of fifty-seven.

Banner Mfg. Co., Denver, soaps and sanitary supplies, has moved recently from 1810 Blake St. to 3551 Blake St.

D. W. Gove, formerly advertising manager of Golden Glint Co., Seattle, has been appointed secretary of the Soap Lake Products Corp., of that city. Soap Lake Products have undertaken a radio and newspaper advertising campaign for several new health products.

Colgate-Palmolive-Peet Co. has announced the appointment of Robert E. Tyriver as eastern divisional sales manager of its toilet articles division. Mr. Tyriver has been with the company for ten years and was formerly district manager of the company's toilet article division in Dallas.

Cudahy Packing Company stockholders have authorized a financing program calling for the issuance of \$30,000,000 of bonds, the proceeds to be used in retiring \$10,626,400 of 51/2 per cent gold debentures and \$6,436,300 of first mortgage 5 per cent gold bonds. The remainder is to be used for additional working balances.

G. H. Sloan, sales manager of Colgate-Palmolive-Peet Co. of Canada, reports that the company's sales for 1935 to date show a substantial increase over 1934 figures.

Lyman Agencies, Ltd., has recently been appointed by Lever Bros. of Canada to take over Canadian distribution of Lever's "Icilma" line of toilet preparations. No changes in prices have been made.

Armour & Co. and subsidiaries report for the twentysix weeks ended on April 27 a net income of \$4,092,561 after depreciation, interest, Federal taxes, minority interest and other charges.

Plough, Inc., Memphis, reports that its sales for the first six months of 1935 show an increase of 27 per cent over 1934, which in turn represented a 40 per cent increase over the previous year.

Drums, Inc., with headquarters in the General Motors Building, Detroit, has started manufacture of chemicals, cleaners, etc.

Max Factor & Co., cosmetic manufacturers, are planning a new addition to their Los Angeles plant.

Stardust Laboratories, a new concern at 2002 Hastings St., Detroit, will manufacture a special line of cosmetics for the colored trade. John C. Chaffee and Frank E. White are the proprietors of the new concern.



It's a distinct advantage to know that the rosin you buy is free from all foreign matter . . . that it can't have any in it because of the way it's made . . . that it never has had any in it as long as it has been made.

Another advantage you can't get away from is the fact that a shipment made today and a shipment made a year . . . or 5 years . . . ago are duplicates, identical twins. And that's the kind of uniformity you want . . . for a uniform product . . . for batch after batch without a change of formula.

Address Main Office: 230 Park Asenue, New York City NEWPORT Plants. De Quing, Last Pennanda, Flast Bay Minnette, Ala.

Arthur C. Roche, treasurer of Lever Bros. Co., Cambridge, for the past fifteen years, died July 19 in the Winchester Hospital after a short illness. Mr. Roche was fifty-one years old and a native of Westerly, R. I. He had been general manager of Loose-Wiles Biscuit Co. before joining the Lever organization. Surviving are his wife, Mrs. Helen Roche, a son, Arthur T. Roche, a daughter, Edith Roche, and a brother, Clarence Roche.

General Soap Corp. of Michigan has purchased land and buildings at the corner of Madison and West 115th Street, Cleveland, to be operated by the General Soap Corp. of Ohio. Granulated and flaked soaps, for both commercial and household use, will be produced in the plant. Equipment is now being installed at a cost of approximately \$50,000.

White King Soap Company is offering a bottle of "Brume Du Bois" perfume for 10 cents in coin and five wrappers from "White King" toilet soap to boost soap sales in the Oklahoma district. The wrappers must be mailed to the White King Company in Los Angeles. Retailers are mentioning the premium in local advertising.

Palmer Products, Inc., Waukesha, Wis., is introducing a new tilt-type powdered soap dispenser which will be sold under the name "Tipowder". It is furnished in either black glass, opal glass or clear glass. There are no gaskets, gears, agitators or other mechanics to give trouble or get out of order. It is absolutely positive in operation and economical in use. The glass bowl is so designed that there are no bands of metal providing cracks and crevices for dirt, grease or grime to accumulate.

Capt. Joseph Battley, formerly administrator under the NRA of the soap and glycerine code, is now associated with Gen. Hugh Johnson in New York City in connection with the federal administration of the PWA in New York City. Capt. Battley is well known in the soap and associated industries as a result of his activities when the NRA was in effect.

In an attempt to forestall further collection of the A. A. A. processing taxes by the U. S. Government, Armour & Co. and Swift & Co. have filed petitions for restraining injunctions in the Federal Court for the Chicago District. The bills ask that the collector of internal revenue be enjoined from collecting processing taxes for the month of May, 1935, and succeeding months.

Arguments in the suit of Eastern Manufacturers, Inc., Jersey City, N. J., against Colgate-Palmolive-Peet Co., involving the ownership of certain patents covering the manufacture of soap and glycerine were concluded recently in the U. S. District Court at Wilmington, Del.

Eastern Manufacturers charge that certain patents used by Colgate-Palmolive-Peet Co. are their property, and filed suit to recover these patents. The litigants are now waiting the decision of the Judge who heard the case.

Orford Soap Co., Manchester, Conn., makers of "Bon Ami," closed its plant July 20 for two weeks while employees were on vacation. This year the company inaugurated a new policy of giving two weeks vacation with pay to all employees who have been with the company five years or more. All whose service is less than five years got their pay for one week.

A. E. Johnston, of Colgate-Palmolive-Peet Co., has been elected chairman of the Committee of the Toilet Goods Industry, succeeding Northam Warren who resigned recently. The committee functions on legislative and tax matters, serving as the legislative committee of the Toilet Goods Association.

Shulton, Inc., New York, has acquired from Koppers Research Laboratories of Pittsburgh, exclusive rights to manufacture and sell soaps and toilet preparations containing "Thylox" colloidal sulfur. "Thylox" soap is at present on the market, and research is in progress which may eventually lead to the development of a number of other products in which "Thylox" sulfur will be incorporated.

Abonita Co., Chicago, private brand cosmetic manufacturer, moved August 1 to new and larger quarters at 24-30 South Clinton St., after having been at their previous location just a block away for over twenty years. New machinery has been installed which will increase plant capacity.

A thousand dollars a year for life, or \$12,000 in cash, heads the list of 1213 prizes in the "Camay" soap slogan contest just announced by Procter & Gamble Co. The contest, which closes on September 30th, will be advertised in leading newspapers throughout the country. Last year the company conducted a similar contest, offering a first prize of \$1,000 a year for life for the best essay submitted. \$500 a year for life or \$6,000 in one cash payment; \$100 a year for life or \$1,200 in one cash payment, will be the second and third prizes respectively.

Bristol-Myers Co. reports consolidated net income, after all charges, for the three months ended June 30, 1935, of \$456,781, equivalent to 66 cents per share on 689,098 shares of common stock outstanding. This compares with earnings of \$352,834, or 51 cents per share on 700,280 shares, for the corresponding quarter of 1934. Directors of the company have declared the regular quarterly dividend of 50 cents per share on the common stock and an extra dividend of 10 cents per share, both payable September 3 to stockholders of record August 9.

RECORD OF TRADE-MARKS

The following trade-marks were published in the July issues of the Official Gazette of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

TRADE MARKS FILED

GEM—This in solid letters describing shaving soap. Filed by American Safety Razor Corp., Brooklyn, May 8, 1935. Claims use since Jan. 2, 1913.

MORNING BLUE—This in solid letters describing water softener. Filed by Morning Blue Products, St. Louis, June 18, 1934. Claims use since February, 1933.

CHOCO-DENT—This in solid letters describing tooth paste. Filed by Hershey Tooth Paste Co., Philadelphia, Apr. 16, 1935. Claims use since September, 1934.

SULFOROTE—This in solid letters describing insecticides. Filed by Mechling Bros. Chemical Co., Camden, N. J., May 3, 1935. Claims use since Jan. 2, 1935.

ETASEPTOL—This in solid letters describing germicide and antiseptic. Filed by Eta Co., Chicago, May 6, 1935. Claims use since Oct. 15, 1934.

LUTZITE—This in solid letters describing insecticide and fungicide. Filed by Ridge Tool Co., North Ridgeville, Ohio, May 8, 1935. Claims use since Jan. 31, 1935.

SOCKO—This in solid letters describing insecticide. Filed by Robt. C. White Co., Philadelphia, May 8, 1935. Claims use since April 9, 1935.

Hypozone—This on reverse plate describing germicide and disinfectant. Filed by Woolf's Hypozone, Inc., New York, May 8, 1935. Claims use since 1916.

Per-Tab—This in solid letters describing tablets for making liquid dentifrice and antiseptic. Filed by General Desserts Corp., New York, May 9, 1935. Claims use since April 15, 1935.

DREAM LUSTER—This in solid letters describing polish. Filed by Allen Smith, Los Angeles, April 13, 1935. Claims use since Jan. 21, 1935.

Mobile Loss—This in solid letters describing detergent and polishing preparation. Filed by Socony-Vacuum Oil Co., New York, April 13, 1934. Claims use since March 1, 1934.

SAF-T-SHAV—This in solid letters, with sketch of razor, describing shaving cream. Filed by Hamlins Wizard Oil Co., Chicago, Nov. 3, 1934. Claims use since Oct. 23, 1934.

LESSLEE'S-This in solid letters describing rug and car-

pet cleaner. Filed by Leslie W. Taylor, Indianapolis, Ind., Feb. 20, 1935. Claims use since June 20, 1932.

Melody—This in solid letters, with musical score, describing hand cleaner. Filed by Cudahy Soap Works, Chicago, April 27, 1935. Claims use since Feb. 22, 1935.

THE BALL OF MAGIC—This in solid letters describing wall paper cleaner. Filed by Absorene Mfg. Co., St. Louis, April 29, 1935. Claims use since April 19, 1935.

SOLARGENTUM—This in solid letters describing antiseptics and germicides. Filed by E. R. Squibb & Sons, Brooklyn, April 24, 1935. Claims use since Nov., 1918.

"Skeeterette"—This in solid letters describing insecticides. Filed by P. D. G. Laboratories, Atlanta, May 2, 1935. Claims use since May 1, 1934.

Nu-Ez—This in solid letters describing liquid wax. Filed by Mahlon D. Hauser, Detroit, Jan. 3, 1935. Claims use since May 17, 1933.

Sun-Kist—This in solid letters describing shoe polish. Filed by Lincoln Shoe Products Mfg. Co., Providence, R. I., Jan. 14, 1935. Claims use since Oct. 1, 1934.

NUFOME—This in solid letters describing cleaning fluid. Filed by Nufome Corp., New York, May 1, 1935. Claims use since April 8, 1935.

Sanavene—This in solid letters describing liquid cleaner. Filed by Sanavene Mfg. Co., St. Louis, May 11, 1935. Claims use since July 25, 1934.

Union—This in solid letters describing glass cleaner. Filed by Union Oil Co. of Calif., Los Angeles, May 25, 1935. Claims use since Aug. 15, 1934.

Angus—This in solid letters with silhouette of shoe, describing shoe cleaner. Filed by J. T. Angus & Co., Caldwell, Ohio, May 27, 1935. Claims use since Feb. 22, 1935.

Sanilac—This in solid letters describing insecticide and disinfectants. Filed by Socony-Vacuum Oil Co.. New York, April 18, 1935. Claims use since April 2, 1935.

STERILFAB—This in solid letters describing deodorant. Filed by Watson-Park Co., Boston, May 10, 1935. Claims use since March, 1934.

Tok—This in solid letters describing insecticides. Filed by Sherwin-Williams Co., Cleveland, May 13, 1935. Claims use since April 25, 1935.

Balistreri Italian Rose Co., Milwaukee, May 17, 1935. Claims use since April 11, 1935.

SENSIBLE — This in solid letters describing shaving cream. Filed by S. L. St. John, Norwood, Mass., June 2, 1934. Claims use since Feb. 10, 1934.

KISLAV—This in solid letters describing laundry soap. Filed by Buscarlet Glove Co., New York, April 10, 1935. Claims use since March 1, 1935.

WHITE CROWN—This in solid letters describing soaps. Filed by Wm. E. Martin, New York, May 22, 1935. Claims use since Jan. 8, 1935.

NIXON—This in solid letters with silhouette of girl, describing shampoo. Filed by Nixon Prods. Co., Omaha, Nebr., April 11, 1935. Claims use since Oct. 1, 1933.

RAFEDES—This in outline letters describing rodent exterminator. Filed by Baldwin Laboratories, Inc., Saegertown, Pa., May 29, 1935. Claims use since Nov. 1, 1932.

TRADE MARKS GRANTED

325,884. Water Softener and Cleaner. Leslie L. Linick, Chicago. Filed January 2, 1935. Serial No. 359,879. Published April 23, 1935. Class 6.

325,892. Shaving Cream. K. G. B. Laboratories, Haverstraw, N. Y. Filed December 12, 1934. Serial No. 359,227. Published April 23, 1935. Class 4.

325,949. Cleaner and Polish. Scotty Products, Philadelphia. Filed October 12, 1934. Serial No. 357,050. Published December 18, 1934. Class 16.

325,996. Water Softener. Monroe Chemical Co., Quincy, Ill. Filed January 22, 1935. Serial No. 360,546. Published April 23, 1935. Class 6.

326,004. Cleansing Powder and Insecticides for Domestic Animals. Dri-Bath Mfg. Co., Brooklyn. Filed Nov. 30, 1934. Serial No. 358,767. Published April 30, 1935. Class 6.

326,014. Antiseptic. Cala Co., Chicago. Filed March 2, 1935. Serial No. 362,089. Published April 30, 1935. Class 6.

326,042. Soaps and Washing Powders. D'Tergo Products Co., Baltimore. Filed March 9, 1935. Serial No. 362,300. Published April 23, 1935. Class 4.

326,043. White Shoe Polish. Clyde Collins Chemical Co., Memphis. Filed March 9, 1935. Serial No. 362,296. Published April 23, 1935. Class 4.

326,045. Shaving Cream, Soap Powder, Laundry Soaps, Soap Flakes, Hand Soaps, and Toilet Soaps. Yardley of London, Inc., Union City, N. J. Filed March 8, 1935. Serial No. 362,279. Published April 23, 1935. Class 4.

326,046. Wall Paper Cleaner. Cleveland Cleaner and Paste Co., Cleveland. Filed March 8, 1935. Serial No. 362,252. Published April 23, 1935. Class 4.

326,047. Liquid Deodorant. Oil City Laboratories, Oil City, Pa. Filed March 7, 1935. Serial No. 362,234. Published April 23, 1935. Class 6.

326,078. Shoe Cleaner, Shoe Polish, and Saddle Soap, Silver Polish, Dry Cleaner, and Detergent. Cardinal Laboratories, Inc., Chicago. Filed January 14, 1935. Serial No. 360,212. Published April 30, 1935. Class 4.

326,095. Brushless Shaving Cream. George W. Beeman, Detroit. Filed December 31, 1934. Serial No. 359,771. Published May 7, 1935. Class 4.

326,096. Shaving Cream. George W. Beeman, De-

troit. Filed December 31, 1934. Serial No. 359,770. Published May 7, 1935. Class 4.

326,166. Polishing Powder. Samuel J. Gross, Brooklyn. Filed March 6, 1935. Serial No. 362,174. Published May 7, 1935. Class 4.

326,213. Hand Cleanser and Waterless Cleaner. R. H. Clemmer Laboratory, Allentown, Pa. Filed February 19, 1935. Serial No. 361,565. Published April 30, 1935. Class 4.

326,238. Shoe Polish. Shur-Shine Products Co., Brooklyn. Filed October 2, 1934. Serial No. 356,677. Published April 23, 1935. Class 4.

326,285. Soaps and Toilet Soaps. J. T. Robertson Co., Syracuse. Filed February 23, 1935. Serial No. 361,776. Published May 14, 1935. Class 4.

326,290. Soap or Soap Flakes. Cincinnati Soap Co., Cincinnati. Filed February 23, 1935. Serial No. 361,725. Published May 14, 1935. Class 4.

326,300. Insecticides. Charles E. Mueller, Cedar Rapids, Iowa. Filed December 17, 1934. Serial No. 359,397. Published May 7, 1935. Class 6.

326,309. Antiseptic Jelly. Michele Conza, Summit, N. J. Filed November 30, 1934. Serial No. 358,765. Published May 14, 1935. Class 6.

326,465. Tooth Powder. Old Timers Remedies, Inc., Chicago. Filed March 8, 1935. Serial No. 362,266. Published May 7, 1935. Class 6.

326,531. Preparation for Exterminating Rats and Mice. West Disinfecting Co., Long Island City, N. Y. Filed March 6, 1935. Serial No. 362,201. Published May 7, 1935. Class 6.

326,635. Shampoo. Cataract Chemical Co., Buffalo. Filed March 23, 1934. Serial No. 349,016. Published May 21, 1935. Class 6.

326,653. Soap. Carman & Co., New York. Filed March 8, 1933. Serial No. 335,547. Published May 21, 1935. Class 4.

326,660. Furniture Polish. Hig Furniture Polish Co., Brooklyn. Filed March 4, 1935. Serial No. 362,113. Published May 21, 1935. Class 16.

326,670. Insecticide. Joe Cross, Belington, W. Va. Filed March 25, 1935. Serial No. 362,952. Published May 14, 1935. Class 6.

326,703. Cleaning and Polishing Preparations. Pure Oil Co., Chicago. Filed January 17, 1935. Serial No. 360,373. Published May 21, 1935. Class 16.

326,718. Washing Crystals and Water Softener. Trixo Co., Los Angeles. Filed Feb. 15, 1935. Serial No. 361,445. Published May 21, 1935. Class 6.

Bon Ami Co. reports for the six months ended June 30, consolidated net income of \$494,774 after depreciation and income taxes, equal to \$2.41 a share on 87,000 shares of Class A stock and \$1.43 a share on 199,800 shares of Class B stock. This compares with \$544,620 or \$2.69 a share on Class A stock and \$1.55 a share on Class B stock in first half of 1934.

NEVER BEFORE HAVE

THESE RARE TYROLEAN PINE OILS

BEEN AVAILABLE IN AMERICA



Silver Pine Needle Oil from Abies Alba

One of the most expensive of all Pine Needle Oils, but outstanding in its perfume and odor value. A comparatively new oil which is becoming more popular every day, especially in England.



Templin Oil

This too is distilled from Abies Alba but only from the cones not the needles. The Tyrol produces a considerable quantity of this oil



Oil Pinus Pumilionis

This is the finest and purest oil we have ever been able to market.



Oil Pinus Sylvestris

A highly important Pine Needle Oil. Only the Tyrolean Pinus Sylvestris should be used in high grade mixtures. Those produced in Siberia and Eastern Asia do not compare in quality HE demand for Pine Oils, both cone and needle, has been constantly increasing in the past few years. Their refreshing and woodsy tang justifies the recognition they are getting for cosmetics, soaps, bath preparations and other similar products.

We have long felt that the importance of these oils demanded better qualities than have been available here. So we recently completed arrangements to have manufactured for us in the Austrian Tyrol some Cone and Needle Oils from several different varieties of Pine. These oils are now available through us in a most exquisite quality.

We believe their unusual and fine fragrance holds a treat in store for those who have yet to see them. Most surprisingly they cost no more than the ordinary qualities.

FRITZSCHE

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New Equipment and Bulletins

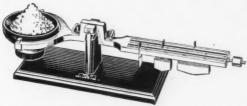
IF YOU want additional information on any of the items described below or if you want any of the bulletins, catalogs, etc., send the coupon below to the Publishers of Soap.

MacNair-Dorland Co., Inc., 254 West 31st St., New York.

- 143. T. Shriver & Co., Harrison, N. J., have just issued two new folders describing the Shriver diaphragm pump. Besides its regular line of pumps for ordinary products, the company also makes special pumps for materials which are hard to handle. These include materials that are abrasive, corrosive, very viscous, easily contaminated, hazardous, or otherwise troublesome. Copies of the folders are available on request.
- 144. STOKES & SMITH Co., Philadelphia, has issued a new folder illustrating a variety of Stokes & Smith filling machines with production speeds of from 20 to 120 units per minute, capable of handling packages of from \(^1/_4\) oz. to 15 lbs. Copies of the folder are available.
- 145. Alsop Engineering Corp., New York, has just issued a new 32-page catalog describing its complete line of "Hy-Speed" liquid handling and processing equipment. The Alsop line includes mixers, filters, bottlefillers, labeling equipment, bottle-washers, tanks, filter disks, pumps, etc. Copies of the new catalog are being sent upon request.
- 146. Anchor Cap & Closure Corp., L. I. City, is mailing a new folder illustrating the two styles of cup caps which they supply for use on liquid packages. The cover type is a simple cover cap which fits over the neck of the bottle. In the sealing type the cup is molded and itself provides the seal.
- 147. LUKENS STEEL Co., Coatesville, Pa., has printed an illustrated folder, dealing with the history of the company, on the occasion of its one hundred and twenty-fifth anniversary. Copies are available.
- 149. U. S. BOTTLERS MACHINERY Co., Chicago, is introducing a new fully automatic high-speed bottle washing machine. With the new machine any speed from 40 to 180 units per minute is obtainable, allowing synchronization of production with any other operation in line. The washer is adapted to handle a large variety

of containers, and is particularly useful for the largesized round bottles and flask types.

148. CHEMICAL PUBLISHING Co., New York, is introducing a new low-priced laboratory balance. Its ca-



pacity is 100 grams and it is accurate to about 1/100th of a gram. The base and pan are of bakelite and the knife edge of an alloy steel. Another new device is a small motor-driven laboratory mixer, useful in making emulsions, dissolving waxes, gums, resins, etc.

150. DECATUR PUMP Co., Decatur, Ill., is introducing a new small-capacity condensation return unit for the small steam plant owner. A descriptive folder is available.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys
PATENT AND TRADE-MARK CAUSES
815 15th St., N. W., Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 2,004,670, Manufacture of Soap Powders, Patented June 11, 1935 by Charles Watson Moore, Warrington, Lancaster, and Horatio Ballantyne, Tadworth, Surrey, England, assignors to Lever Bros., Ltd., Port Sunlight, England. As an article of manufacture a perborate soap powder containing sodium silicate and magnesium chloride uniformly distributed therein as stabilizing substance in amount equivalent to 0.1 per cent to 0.3 per cent of magnesium oxide (MgO) on the weight of the soap powder.

No. 2,005,160, High-Percentage Transparent Soaps, Patented June 18, 1935 by Wilhelm Pape, Benrath-on-the-Rhine, Germany, assignor, by mesne assignments, to Procter & Gamble Company, Ivorydale, Ohio. As an article of manufacture the product produced by the process of claim 1, consisting of a substantially transparent, kneaded toilet soap bar containing substantially seventy-one per cent to seventy-five per cent of fatty (Turn to Page 47)



Will your soap pass Milady's fragrance test?

It is not only the money spent for a perfume that proves its value, but its well balanced composition and effectiveness. We have specialized in soap perfumes and shall be glad to put our knowledge at your disposal.

SCHIMMEL & CO., INC.

601 WEST 26th STREET

NEW YORK CITY

Chicago Representative

A. C. DRURY & CO., 219 E. North Water Street, Chicago, Ill.

Schaal's Rapid Saponification Process

Complete saponification in batches of 1000 lbs. in about 30 minutes. Somewhat more time required for larger quantities.

Remaining glycerine gives 10% increased yield.

No kettles, pumps, dryers or steam required.

Process based on temperature control and saponification catalyst.

No special machinery necessary. Superior To Any Other Rapid Method

THE Schaal Process permits the use of lower grade fats, grease and tallow with about 30% fatty acid content, 20% rosin and additional quantity of silicate. It is ideal for cheaper quality filled laundry soaps, bars, flakes and chips.

The simplicity and speed with which a completely saponified soap can be made and converted into a finished bar of milled toilet soap, laundry soap or floating soap is most astonishing. Toilet soap produced by this process is of excellent appearance and texture. Testimonials from leading soap manufacturers at your disposal.

Further Details From

JULIUS SCHAAL

c/o Lawrence Richard Bruce, Inc., 132 W. 46th St., N. Y. C.

CONTRACTS AWARDED

J. Eavenson & Sons, Camden, was low bidder on 160,000 lbs. laundry soap powder for Washington Br. of Supply in a recent bidding, with a quotation of 1.79c. Other quotations ranged up to 2.64c.

Kirkman & Son, Brooklyn, have recently been awarded a contract covering 40,000 lbs. of soap and scouring compound for the U. S. Post Office Department, Washington, at a price of \$616.

Royster Products Co. has been awarded a contract covering insecticide supplies for the U. S. Treasury Department, Washington, on a quotation of \$1,760.

Armour & Co. has been awarded a contract for 11,200 lbs. soap scouring compound for the U. S. Post Office Department, Washington, at a price of 2.1c per lb.

National Carbon Co. awarded 2,000 gals. of anti-freeze for U. S. Department of Commerce, Washington, at \$1.44 per gallon.

Conray Products Co., New York, awarded 20 drums carbon tetrachloride for Fort Peck, Mont., Engr., on a quotation of \$986.

In a recent U. S. Navy Department bidding Colgate-Palmolive-Peet Co. entered the low bid of \$1,877.95 on 25,000 lbs. olive oil-soda soap and was also the low bidder with a figure of \$971.64 on 11,600 lbs. of the same product. John T. Stanley Co., New York, was low bidder on 19,200 lbs. chip soap with \$1,337.24 and on an additional 10,000 lbs. with 6.97c. Day & Frick, Philadelphia, was low bidder on 10,000 lbs. grit soap, quoting \$355.25. On an additional 8,000 lbs. of grit soap Newell-Gutradt Co., San Francisco, was low with a quotation of 3.3c lb. General Soap Co., San Francisco, entered low bids as follows: 9,750 lbs. laundry soap, \$351; 100 gals. liquid soap, 21.7c per gal., and 3,000 lbs. toilet soap, 7.55c per lb. Kirkman & Son, Brooklyn, was low bidder on 12,400 lbs. laundry soap, with \$494.38. R. M. Hollingshead Corp., Camden, was low bidder on 2,100 gals. liquid soap, quoting \$520.50. On 14,675 lbs. toilet soap the low bid of \$990.47 was entered by J. Eavenson & Sons, Camden.

Bids have been entered as follows on 810 gals. insecticide for the U. S. Army Quartermaster at Fort Riley, Kansas: R. M. Hollingshead Corp., Camden, N. J., 65c gal., 2 per cent; Rex Research Corp., 600 Montrose Ave., Toledo, \$1, 2 per cent; Missouri-Kansas Chemical Corp., Kansas City, \$1.03, 2 per cent; Geo. C. Gordon Chemical

Co., Kansas City, 65c, 1 per cent; West Disinfecting Co., Kansas City, 94c, 2 per cent; Victor L. Phillips Co., Kansas City, 80c, 2 per cent.

Bids have been entered as follows in a recent opening covering 1,600 gals. metal polish for the U. S. Post Office Department: Puritan Soap Co., Rochester, N. Y., 38.9c gal., 1 per cent; Industrial Labs., Balto., 75c, 1 per cent; Samuel April, N. Y. C., 44.8c, 2 per cent; Interboro Chemical Co., N. Y. C., 32.9c, 1 per cent; Uncle Sam Chemical Co., N. Y. C., 40c, 2 per cent; Charles Chemical Co., Scranton, Pa., 33.5c, 2 per cent; R. M. Hollingshead Corp., Camden, N. J., 31c, 2 per cent; Solarine Co., Balto., 34.5c; James Good, Phila., 36.9c, 1 per cent; Noxon, Inc., N. Y. C., 48c, 2 per cent.

The following bids have been entered by various concerns on 1,800 gals. floor wax for the U. S. Post Office Department: Mitchell-Rand Mfg. Co., N. Y. City, 40c and 48c gal, 1 per cent; Crystal Soap & Chemical Co., Phila., 42c, 42.5c and 47.9c, 1 per cent; Industrial Labs., Balto., 65c, 1 per cent; W. R. Winslow Co., Washington, 90c; Windsor Wax Co., N. Y. City, 44.8c, 1 per cent; Baltimore Paint & Color Wks., Balto., 47c and 44 c, 1 per cent; Eaton Wax Co., Buffalo, N. Y., 44c, 1 per cent; R. M. Hollingshead Corp., Camden, N. J., 43c, 2 per cent; Lustrwax-Best Products Co., Kansas City, Mo., 80c, 3 per cent; Sherwin-Williams Co., Washington, 51c, 52c and 53c, 1 per cent; Jas. Good, Phila., 39.4c, 1 per cent; Noxon, Inc., N. Y. City, 44c, 2 per cent; Davies-Young Soap Co., Washington, 56c, 2 per cent.

Du-All Mfg. Co., Washington, was the low bidder on 250 doz. floor maps for the U. S. Post Office Department in a recent bidding, with a quotation of \$3.20 per doz.

Kargul Chemical Laboratories has been organized by John D. Karagulis in Detroit to manufacture a line of cosmetics. Offices are located at 2963 East Lafayette St.

GERMICIDAL DETERGENTS

The third article on "Germicidal Detergents" to appear in SOAP within the current year will be published in the next issue. This will be by Dr. Arthur R. Cade of the University of Minnesota... an outstanding authority on this important phase of soap and detergent uses... see the September issue of SOAP!

Market Report on

TALLOW, GREASES, AND OILS

(As of August 6, 1935)

NEW YORK—Following the precipitous drop in coconut oil prices last month, the market for soapmaking fats and oils continued to ease off this period, with a number of other soap-making raw materials registering sympathetic declines. Coconut oil also dropped still lower and reached a point at which it was expected momentarily that large domestic buyers would again enter the market. Some buying for domestic consumption has already been reported, but the largest buyers have not as yet re-entered the market. Another factor which may have a considerable bearing on oil and fat prices is that European buyers are reported active again in the Manila copra market and Mexican crushers are also reported taking stocks. It was in just such a situation as this less than a year ago that American coconut oil users awoke one fine morning to find that European buyers had beaten them to the copra market.

COCONUT OIL

Coconut oil continued to decline in price this period as the strike of buyers continued. In fact prices reached the 31/4c level at one point where it had been expected that substantial demand would again be uncovered, without, however, disclosing the expected demand. Some buying for smaller accounts has been noted recently, but up to the current writing the larger buyers have not yet re-entered the market. Reports from Manila, however, indicate that foreign buyers have started picking up copra, and, with this spur, it is believed that it is merely a matter of days before American buyers start to take advantage of the current low quotations. It is interesting to note that while American buyers have other directions in which to cover their requirements, the European users do not have this same margin of safety and may be expected to be more willing buyers.

CORN OIL

Corn oil was unchanged in price this period, with buyers being inactive and apparently willing to await developments in competing product before again entering the market. GREASE

Grease prices dropped off rather sharply this period, falling over a cent a pound, and bringing the cheaper grades down below the five cent level.

PALM OIL

Palm oil prices were lower this period, but there was little buying activity in the market due to desire in many quarters to await further developments in the coconut oil price situation.

TALLOW

Tallow prices were also off from previous levels re-

flecting the general tone of the market. Sellers were not anxious to push sales at the decline, and were not inclined to disturb consumers in their desire to hold off for further developments. Futures ranged upward from 6c per pound in the local market for fall delivery.

COLGATE NET HIGHER IN FIRST HALF

Colgate-Palmolive-Peet Co. reports net profits of \$2,824,810 for the first half of 1935, comparing with \$2,416,888 in the corresponding period of 1934. Sales were \$41,713,288 as against \$37,081,211 last year. In view of the unusual conditions surrounding the value of raw materials and inventories, the directors of the company considered it advisable to set aside from profits a reserve of \$900,000 to offset possible future decline in market values. With this deduction the balance available for dividends was \$1,924,810, equal after preferred dividends to 60c a share on 1,949,086 shares. This compared with 84c a share last year when no such deduction for reserve was made. The balance sheet as of June 30, 1935, shows cash of \$8,130,462 and gold held abroad, purchased with foreign funds, at cost of \$2,500,229. Net security holdings after reserves were \$1,555,643, and net receivables were \$9,142,889. Total current assets \$42,691,158, against current liabilities of \$7,542,399.

Archer-Daniels-Midland Co., Minneapolis, announce the production of high-grade distilled fatty acids for the consuming trades from their recently installed equipment. At present, shipments of distilled linseed fatty acids are being made and within a very short time, other vegetable oil fatty acids will be supplied.

Averon Cosmetics, Inc., has just started operations at 33 West 17th St., New York, manufacturing toilet preparations. David Schlesinger, formerly chief chemist for Crystal Chemical Corp., is in charge of production, and Louis Kronish, president of the company, will direct sales.

COCONUT OIL

The whys and wherefores of coconut oil . . . its production, refining, grading and uses in soap manufacture . . . what to look for in buying . . . what to avoid . . . origin of present quality standards . . . why it is the most valuable soap oil . . . will be discussed by Margaret Hausman in an early issue of SOAP.

Market Report on

SOAP AND DISINFECTANT CHEMICALS

(As of August 6, 1935)

NEW YORK—In spite of the continuation of general uncertainty regarding the legislative outlook, and the failure of Congress to terminate the current session, business showed a contra-seasonal improvement during the period just concluded. In a number of heavy industrial lines activity increased instead of showing the usual summer decrease, resulting in a more active call for industrial chemicals. Alkalis were in good demand from the paper and textile trades as well as from soap makers. The coal-tar market continued firm, with a number of items in light supply. Rosin prices were generally lower, as the government licensing arrangement and the system of governmental loans to producers expired.

ALKALIS

There was an increased demand for alkalis this period, particularly from the paper and textile trade, in contrast to the seasonal let-down in productive schedules normally expected at this time. The soap trade also continued active, taking normal stocks on contract in a firm market.

COAL TAR PRODUCTS

Prices of crude naphthalene continue to be firmly held at the higher levels recently quoted. It is reported also by a buyer of tar acid oils and neutral oil for disinfectant use that these products are in very light supply and higher prices may shortly be expected.

GLYCERIN

There was no change in the glycerin price situation this period, with sellers reporting satisfactory transactions for this season of the year, and looking forward to the usual expansion in demand in the course of the next few months.

PYRETHRUM

With importers reporting that the current pyrethrum crop, first arrivals of which are now coming in, will reach record proportions, prices of pyrethrum flowers, powder and extract have tumbled over recent weeks. In one quarter it is estimated that the 1935 Japanese crop will be 40 per cent larger than any previous crop ever harvested. In a falling market of this type it is difficult to report prices accurately, but at the current writing powder of a good grade is reported selling at figures ranging from 16 to 18 cents a pound. Even lower prices may be obtainable from some sources, it is possible. Extract prices are off correspondingly from previous levels.

ROSIN

Rosin prices continued to slump this period, with the announcement that after August 5 the government licensing agreement and the government loans for rosin producers would expire. The following range of quotations is currently being quoted on the various grades: gum rosin, grade B, \$4.55; H, \$5.15; K, \$5.25; N, \$5.50; WG, \$5.75; X, \$5.80; wood, \$4.20 to \$5.75.

A concern in Cape Haitien, Haiti, is interested in securing an agency for sale of American toilet soaps. Interested concerns may communicate through the U. S. Bureau of Foreign & Domestic Commerce, mentioning inquiry number 9242.

A study of the market for shaving cream in northeastern Ohio has recently been concluded by the Cleveland Plain Dealer, Cleveland, in an attempt to estimate the potential sales total for that district. The value of per capita consumption per shaver is estimated at approximately 30c in the survey, which forecasts a possible sales total over \$600,000 for the district. The survey gives the number of male shavers and the number of drug outlets. It also includes estimates for over 100 major market cities all over the country.

NEW PATENTS

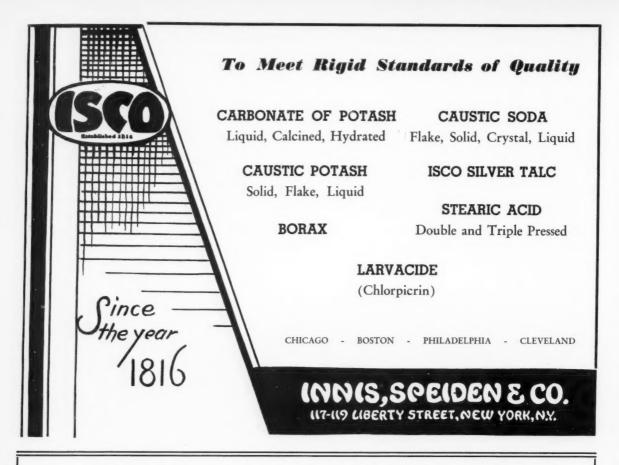
(From Page 43)

acids and having the original shape that it had when stamped as a bar.

No. 2,005,333, Refining a Soap Base. Patented June 18, 1935 by John W. Bodman, Winchester, Mass., assignor to Lever Brothers Company, Cambridge, Mass. The process of homogenizing and refining a soap base for the production of a homogeneous plastic mass from which bars or cakes may be subsequently formed, which consists in regulating the temperature of the base to maintain a predetermined condition of plasticity and, while so maintained, repeatedly forcing the base under a high pressure through successive sets of minute orifices of decreasing size, with none of the orifices having a size comparably greater than the openings of a 20-mesh screen.

No. 2,006,192, Composition for Rejuvenating Fabrics, Patented June 25, 1935 by George M. Babcock, deceased, late of Evanston, Ill., by Julia Babcock, administratrix, Evanston, Ill. A composition of matter for rejuvenating cloth made up of grain alcohol, ammonia, glacial acetic acid, muriatic acid, oil of lavender and chloroform.

No. 2,006,227, Insecticide, Patented June 25, 1935 by Euclid W. Bousquet, Wilmington, Del., assignor, by mesne assignments, to The Grasselli Chemical Company, Cleveland, Ohio, a corporation of Delaware. A contact insecticide comprising lecithin.



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DEALERS

BROKERS

OLIVE OIL (all grades) and OLIVE OIL FOOTS

Cottonseed Soap Stock

Neatsfoot Oil Coconut Oil Cottonseed Oil Palm Kernel Oil Stearic Acid Oleo Stearine

Palm Kernel Oil Denatured)

Soya Bean Oil (English or German Fatty Acids, Animal & Vegetable

Tallow Red Oil

Castor Oil Soap Colors Sesame Oil Lard Cil Chlorophyll Palm Oil Soda Ash Corn Oil Sal Soda

Peanut Oil Grease (Animal)

Rapeseed Oil

Teaseed Oil

Boiled-down Cottonseed Soap

Trisodium Phosphate Caustic Potash Carbonate Potash Bath Powder Modified Soda Caustic Soda

Silicate of Soda Meta Silicate and Metso

"CEREPS" Superfatting Neutralizing Agent

Write for Information and Samples.

WELCH, HOLME and CLARK CO., INC.

563 Greenwich Street

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New York City

ESSENTIAL OILS AND AROMATICS

(As of August 7, 1935)

NEW YORK—The citrous oils attracted the principal attention in the local essential oil market this period, with lemon oil, orange oil and bergamot oil all moving up rather sharply in price. The Italian Government is reported to be discouraging exports of lemons, finding it necessary to keep as large stocks as possible available for use of the armed force which it has sent to Ethiopia. The citrous fruits are considered essential in the prevention of disease in the tropical African climate. The result has been sharply higher shipment prices for lemon oil, boosting the spot market for this oil as well as other citrous oils. The market was quiet, otherwise, with a seasonal lack of buying interest. The only other oils which seem to be attracting any attention are those on which new crops are coming in.

ANISE OIL

Quotations on anise oil were unchanged this period, although the market is reported to have weakened further. Lack of sales makes it difficult to picture the exact price position of this oil, which could probably be obtained at lower than the quoted 50c price on business of any consequence.

BERGAMOT OIL

Bergamot oil was advanced this period in sympathy with the higher prices quoted on other citrous oils. The inside price is now \$1.30 and quotations on the better brands range up to \$1.90. Talk of still higher prices in the near future is heard. A recent development has been the imposition by the Italian government of a sales tax on exports of bergamot oil.

CASSIA OIL

The continuation of the downward trend in silver bullion and Chinese exchange caused a further drop in the price of cassia oil this period, with the lowest local quotation now being in the neighborhood of \$1.40 per pound.

CITRONELLA OIL

A fairly good seasonal demand for citronella oil was reported this period, although demand was mostly for small lots. A pick-up may be expected as new crop oil begins to come in.

LEMON OIL

Italian lemon oil was sharply higher at \$1.35 to \$2.05 a pound this period, owing to the Italian Government's plan of discouraging exports of fruit. Cable offers on futures continue to come in at figures which indicate spot prices may go even higher. American oil is unchanged in price.

Superior Chemical Works is a new chemical manufacturing concern in Louisville, Ky.

Edward T. Beiser Co., perfuming materials, recently moved to new quarters at 77 South St., Stamford, Conn. The company was formerly located in Riverside, Conn.

CALL STERLING-WATKINS MERGER ILLEGAL

Acquisition of the capital stock of R. L. Watkins Co., last year, by Sterling Products, Inc., Wheeling, W. Va., has been declared illegal by the U. S. Federal Trade Commission. The complaint alleges that the stock transfer has destroyed both actual and potential competition between the two companies and so is in violation of section 7 of the Clayton Act. Sterling Products sells "Phillips'" dental magnesia and "Danderine" hair dressing, while two well-known competing products of the Watkins company are "Dr. Lyon's" tooth powder and "Glostora" hair dressing. Both organizations sell to the same class of trade and their sales are said to be largely centered in the same districts.

Cliffs Dow Chemical Co., Cleveland, has appointed George W. Truxal Co., Cleveland, distributor for northern and central Ohio. Mr. Truxal was formerly sales manager for the chemical department of Cleveland-Cliffs Iron Co., recently taken over by Cliffs Dow.

The large stainless steel soap kettle which was pictured on page 64 of the July issue of SOAP was manufactured and installed by Littleford Brothers of Cincinnati. In the caption accompanying the photo, the name of this company was unintentionally omitted.

Southern Laboratories has started operations at 718 W. Oak St., Louisville, Ky., in the manufacture of cosmetics. W. A. Buckowy and Harry R. Ash are the organizers.

H. J. Wilbur has recently formed the H. J. Wilbur Chemical Co. at 928 Van Wagenen Pl., North Bergen, N. J., to manufacture chemicals.

WATER SOFTENERS

"Household Water Softeners" . . . a discussion of their composition and action . . . the conditions under which they should be sold and used . . . their relation to the use and consumption of soap . . . and to detergent action and the formation of insoluble soaps . . . an interesting and informative discussion by Dr. C. A. Tyler to be published in the next issue of SOAP.

for Your Private Label

SPECIAL CLEANSERS

Our list includes the most efficient cleanser compounded for your particular trade.

SUPER ALKALIES

These are products which are adapted for special uses where stronger alkalies are required.



The accepted base for quality bath crystals.

SCOURING COMPOUND

An effective abrasive product for cleaning floors, marble, etc.

PARA DICHLOROBENZENE

This exceptionally pure product is an excellent deodorant and moth preventive.

ORTHO DICHLOROBENZENE

For insecticide sprays and metal polishes.

Put Solvay quality into your packages and get more out of your private brand. Write for Booklet SC7 for particulars on products for your special trade.

SOLVAY SALES CORPORATION

Alkalies and Chemical Products Manufactured by The Solvay Process Company

40 RECTOR STREET NEW YORK





Controlled Production:

We collect, render and refine all of the raw materials used in our stearic acid and red oil. This close control, not available in any other brand, insures high quality products by eliminating low grade raw materials. Let us submit samples and prices. There is no substitute for quality. Use them in your

Dry Cleaning Soaps
Shaving Soaps
Special Cleaners
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FANCY - EXTRA and SPECIAL TALLOW Fatty Acids

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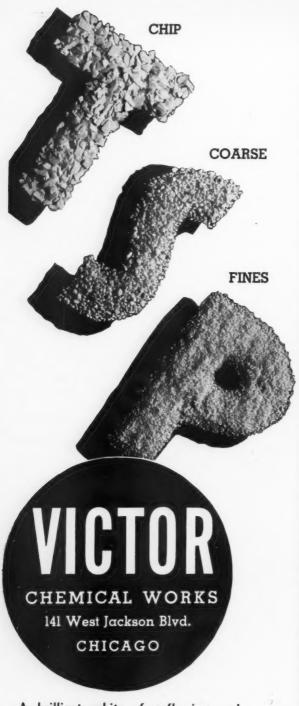
KEARNY, N. J. ESTABLISHED 1914

CURRENT PRICE QUOTATIONS

(As of August 6, 1935)

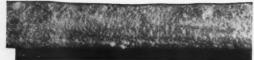
Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals			Car lots, in bulk 100 lb.	_	\$1.05
Acetone, C. P., drumslb.	\$.11	\$.121/2	Soda Caustic, cont., wks., sld100 lb.	_	2.60
Acid, Broic, bbls., 99½ % ton	95.00	100.00	Flake	_	3.00
Cresylic, 97½ dk., drumsgal.	.43	.44	Liquid, tanks100 lb.	_	2.25
97-99%, pale, drumsgal.	.46	.47	Soda Sal., bbls	1.10	1.30
Low boiling gradegal.	.64	$.65$ $.12\frac{1}{4}$	Sodium Chloride (Salt)ton	11.40	14.00
Oxalic, bbls	.11½	.1274	Sodium Fluoride, bblslb.	.071/4	.08 3/4
Adeps Lanae, hydrous, bbls lb. Anhydrous, bbls lb.	.16 .17	.19	Sodium Hydrosulphite, bblslb.	.19	.20
Alcohol, Ethyl, U. S. P., bblsgal.	4.16	4.28	Sodium Silicate, 40 deg., drum. 100 lb.	.80	1.20
Complete Denat., No. 5, drums, ex. gal.	.35 1/2	.43 1/2	Drums, 52 deg. wks 100 lb.	1.35	1.75
Alum. Potash lumplb.	.03 1/2	.03 3/4	Tar Acid Oils, 15-25%gal.	.21	.24
Ammonia Water, 26°, drums, wkslb.	.02 1/2	.02 3/4	Trisodium Phosphate, bags, bblslb.	.03	.03 1/2
Ammonium Carbonate, tech., bblslb.	.08	.12 1/2	Zinc Oxide, lead freelb.	.06	.061/4
Bleaching Powder, drums 100 lb.	2.15	3.50	Zinc Stearate, bblslb.	.29	.22
Borax, pd., cryst., bbls., kegston	50.00	55.00			
Carbon Tetrachloride, car lotslb.	_	.051/4	Oils — Fats — Greas	ses	
L. C. L	.07	$.08\frac{1}{2}$	W		
Caustic, see Soda Caustic, Potash Caustic			Castor, No. 1, bblslb.	.101/4	.11
China Clay, fillerton	10.00	25.00	No. 3, bblslb.	.09 3/4	$.10\frac{1}{2}$
Cresol, U. S. P., drumslb.	.11	.111/2	Coconut		005/
Creosote Oilgal.	.11 1/2	.12 1/2	Manila, tanks, N. Y. lb. Tanks, Pacific coast lb.	.031/4	.03 %
Feldsparton	14.00	15.00	Cod, Newfoundland, bbls. gal.		.35
(200 to 325 mesh)			Copra, bulk, coast	.0190	.0195
Formaldehyde, bblslb.	.06	.07	Corn, tanks, millslb.	.08 3/4	.09
Fullers Earthton	15.00	24.00	Cottonseed, crude, tanks, mill lb. PSYlb.	.08	.08½ Nom.
Glycerine, C. P., drumslb.	.14	.14 1/2	Degras, Amer., bbls	.051/4	.06
Dynamite, drums	.1334	$.14\frac{1}{2}$	English, bbls.	.0434	.05 1/2
Saponification, drums lb. Soap lye, drums lb.	$.10\frac{1}{4}$ $.09\frac{1}{4}$	$.11\frac{1}{2}$ $.09\frac{1}{2}$	Neutral, bblsib.	.08	.11
Hexalin, drumslb.	.03 74	.30	Greases, choice white bbls., N. Y. lb.	.05 %	$.06\frac{3}{4}$
		35.00	Yellowlb.	.04 1/8	.05 1/4
Kieselguhr, bagston Lanolin, see Adeps Lanae.	_	33.00	House lb. Lard, City lb.	.04%	.16
	1.70	2.20	Compound tierceslb.	.121/2	.123/4
Lime, live, bbls per bbl. Mercury Bichloride, kegs lb.		.76	Lard Oil,		22.00
	.71	.051/4	Extra, bbls	_	.1134
Naphthalene, ref. flakes, bblslb. Nitrobenzene (Myrbane) drumslb.	.09	.11	Extra, No. 1, bbls lb. No. 2, bbls lb.	_	$.10\frac{1}{2}$ $.09\frac{3}{4}$
Paradichlorbenzene, bbls., kegslb.	.16	.25	Linseed, raw, bbls., spotlb.	.0910	.0950
Petrolatum, bbls. (as to color)lb.	.02	.071/4	Tanks, rawlb.	_	.0850
Phenol, (Carbolic Acid), drumslb.	.141/4	.16	Boiled, 5 bbls, lotslb.		.1030
Pine Oil, bblsgal.	.59	.64	Menhaden, Crude, tanks, Baltgal.	.28	Nom.
Potash, Caustic, drumslb. Flakelb.	.061/4	$.06\frac{1}{2}$ $.07\frac{1}{4}$	Oleo Oil, No. 1, bbls., N. Y lb. No. 2, bbls., N. Y lb.	_	.11 34
Potassium Carbonate, solidlb.	.071/4	.09 1/2	Olive, denatured, bbls., N. Y. gal.	.84 .	.85
Liquidlb.	.03 1/2	.03 3/4	Foots, bbls., N. Ylb.	.08	.081/4
Pumice Stone, powder100 lb.	3.00	4.00	Palm lb.	.04	.041/4
Rosins (600 lb. bbls. gross for net)—	4.55	5.15	Palm Kernel, casks, denatured lb. Peanut, domestic tanks lb.	$.03\frac{3}{4}$ $.08\frac{3}{4}$.04 Nom.
Grade B to H, basis 280 lbs. bbl. Grade K to N bbl.	5.25	5.50	Peanut, domestic tanks lb. Red Oil, distilled bbls lb.	.09 1/8	.101/2
Grade WG and X bbl.	5.75	5.80	Saponified bblslb.	.09 1/8	.10 1/2
Woodbbl.	4.20	5.75	Tankslb.		.081/4
Rotten Stone, pwd. bblslb.	$.02\frac{1}{2}$.04 1/2	Soya Bean, domestic tanks, N. Y lb.	_	.08
Silicaton	20.00	27.00	Stearic Acid,	.103/4	.1134
Soap, Mottledlb.	.04 1/8	.04 %	Double pressedlb. Triple pressed, bgslb.	.131/2	.141/2
Olive Castile, barslb.	.13 .23	.19 .30	Stearine, oleo bblslb.	.083/4	.09
Olive Oil Footlb.	.07	.07 1/2	Tallow, special, f.o.b. plantlb.		.05 34
Powdered White, U. S. Plb.	.19	.21	City, ex. loose, f.o.b. plantlb.	_	.05%
Green, U. S. Plb.	.06 1/2	.08	Tallow, oils, acidless, tanks, N. Y. lb.	_	.09 1/2
Tallow Chipslb.	.071/4	.07 34	Bbls., c/1 N. Y	_	.10 1/2
Whale Oil, bblslb. Soda Ash, cont., wks., bags, bbls. 100 lb.	1.23	1.50	Whale, refinedlb.	.07%	.08
Tour along tone, many bags, born. Too to					



A brilliant white, free-flowing and non-caking tri-sodium phosphate of uniformly high quality. Four grades as illustrated.

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MAC NAIR - DORLAND COMPANY, Inc.

Publishers

254 WEST 31st STREET NEW YORK CITY

Essential Oils

Aromatic Chemicals

Almond, Bitter, U. S. P lb. Bitter, F. F. P. A lb. Sweet, cans lb.	2.25	\$2.50 2.75 .60	Acetophenone, C. P lb. Amyl Cinnamic Aldehyde lb. Anethol lb.	\$1.25 1.75 1.00	\$2.25 2.50 1.10
Anise, cans U. S. Plb.	.50	.60	Benzaldehyde, techlb.	.60	.65
Apricot, Kernel, canslb.		.25	U. S. P	1.10 .56	$\frac{1.30}{1.00}$
Bay tins	$\frac{1.25}{1.30}$	$\frac{1.50}{1.90}$	Alcohollb.	.65	1.15
Artificiallb.	1.00	1.30	Citral lb. Citronellallb.	2.40 2.05	2.60 2.50
Birch Tar, rect. tinslb.		.75	Citronellollb.	2.10	2.65
Crude, tinslb.	.14	.16	Citronellyl Acetatelb.	4.50	$7.00 \\ 3.30$
Bois de Rose, Brazilianlb.	1.25	1.60	Coumarinlb. Cymene, drumsgal.	3.10 .90	1.25
Cayennelb.	2.40	2.90	Diphenyl oxide	.85	1.25
Cade, cans	.26 .50	.30 .60	Eucalyptol, U. S. P	.50	.55
Calamus, tinslb.	3.25	3.50	Eugenol, U. S. P lb. Geraniol, Domestic lb.	$\frac{2.00}{1.25}$	$\frac{2.50}{2.00}$
Camphor, Sassy, drumslb.		.19	Importedlb.	2.00	3.00
White, drumslb.	0.50	.20	Geranyl Acetatelb.	3.00	3.50
Cananga, native, tinslb.	2.50	2.80	Heliotropinlb. Hydroxycitronellallb.	$\frac{2.00}{3.50}$	$\frac{2.10}{9.00}$
Rectified, tins	2.95 1.95	$\frac{3.50}{2.20}$	Indol, C. Poz.	2.00	2.50
Cassia, Redistilled, U. S. P	1.40	1.60	Iononelb. Iso-Eugenollb.	3.60	6.50
Cedar Leaf, tins	.53	.70	Linaloollb.	$\frac{3.00}{1.65}$	4.25 2.25
Cedar Wood, light, drumslb.	.20	.27	Linalyl Acetatelb.	1.85	4.25
Citronella, Java, drumslb.		.33	Menthollb.	3.50	3.60
Citronella, Ceylon, drums		.29	Methyl Acetophenonelb. Anthranilatelb.	$2.50 \\ 2.15$	$\frac{3.00}{3.20}$
			Paracresollh.	4.50	6.00
Cloves, U. S. P., tins	.90	.92	Salicylate, U. S. Plb. Musk Ambrettelb.	.40	.45
Eucalyptus, Austl., U. S. P., canslb.	.27	.30	Ketonelb.	$\frac{4.75}{5.00}$	$6.00 \\ 6.50$
Fennel, U. S. P., tinslb.	1.00	1.25	Xylenelb.	1.50	2.50
Geranium, African, canslb.	4.90	6.75	Phenylacetia Acid 1 lb bet lb	4.80	8.00
Bourbon, tinslb.	4.75	6.75	Phenylacetic Acid, 1 lb., botlb. Phenylethyl Alcohol, 1 lb. botlb.	3.00 4.00	4.00 4.50
Hemlock, tinslb.	.70	.75	Rhodinollb.	5.75	8.00
Lavender, U. S. P., tinslb.	3.00	7.00	Safrol lb.	.60 .33	.62
Spike, Spanish, canslb.	.95	1.60	Terpineol, C. P., 1,000 lb. drslb.	.36	.35 .37
Lemon, Ital., U. S. Plb.	1.35	2.05	Terpinyl Acetate, 25 lb. canslb.	.80	.90
Lemongrass, native, canslb.	.70	.80	Thymol, U. S. Plb. Vanillin, U. S. Plb.	1.40 3.00	1.50 3.50
Linaloe, Mex., caseslb.	1.35	1.50	Yara Yaralb.	1.30	2.00
Nutmeg, U. S. P., tinslb.	1.20	1.35	Insecticide Materia	ls	
Orange, Sweet W. Ind., tinslb.	2.40	2.50	Terrort1 111		
Italian coplb.	2.25	3.25	Insect powder, bbls	.17	.18
Distilledlb.	.65	.70	5 to 1gal.	1.25	1.30
Origanum, cans, techlb.	.70	.75	15 to 1	3.38 4.30	3.40 4.40
Patchoulilb.	2.75	3.50	30 to 1 gal.	6.62	6.69
Pennyroyal, domlb.	1.85	1.90	Derris, powder—4% lb. Derris, powder—5% lb.	.41	.45
Importedlb.	1.35	1.70	Cube, powder—4%	.39	.43
Peppermint, nat., cases	2.25	2.75	Cube, powder—5%lb.	.44	.48
Redis., U. S. P., caseslb.	2.50	3.05	Gums		
Petit, Grain, S. A. tinslb.	1.00	1.15	Arabic, Amb. Sts lb.	.111/2	.121/2
Pine Needle, Siberianlb.	.85	.95	White, powderedlb.	$.15\frac{1}{2}$.161/2
Rose, Naturaloz.	5.50	18.00	Karaya, powdered No. 1lb. Tragacanth, Aleppo, No. 1lb.	.08	.09
Artificialoz.	2.00	3.00	Sortslb.	1.25 .11	1.30 .12
Rosemary, U. S. P., tinslb.	.32	.38			****
Tech., lb. tinslb.	.28	.35	Waxes		
Sandalwood, E. Ind., U. S. Plb.	5.00	5.50			
Sassafras, U. S. P	.75 .45	1.00 .50	Bees, whitelb. African, bgslb.	.22	.33 1/2
Spearmint, U. S. Plb.	1.75	1.85	Refined, yellb.	.27	.28
			Carnauba No. 1	.121/2	.131/2
Thyme, red, U. S. P lb. White, U. S. P lb.	.58	1.02	Carnauba, No. 1 lb. No. 2, yel. lb.	.46	.48
	.65	1.10	No. 3, chalky lb.	.36	.37
Vetivert, Bourbonlb.	12.75	14.00	Ceresin yellowlb.	.36	.38
Ylang Ylang, Bourbonlb.	4.60	7.00	Paraffin, ref. 125-130lb.	.041/4	.04 1/2

CASTOR OIL
COCOANUT OIL
COORN OIL
COTTONSEED OIL
LARD OIL
NEATSFOOT OIL
NEATSFOOT OIL
OLIVE OIL
OLIVE OIL
OLIVE OIL
OLIVE OIL
FALM OIL
PALM KERNEL OIL
PEANUT OIL
RAPESEED OIL
ROSIN CASTOR OIL ROSIN ROSIN SALAD OIL SOYA BEAN OIL SESAME OIL TEASEED OIL WHITE OLEINE FATTY ACIDS STEARINE STEARINE GREASE TALLOW

TALLOW

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Drums Rorrele Tank Wagons OLIVE OIL

OLIVE OIL FOOTS

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DISODIUM PHOSPHATE GLAUBERS SALTS GLYCERINE METASILICATE
OXALIC ACID
POSTASSIUM
CARBONATE SAL. AMMONIAC SALT SAL SODA SILICATE OF SODA SODA ASH TRISODIUM PHOSPHATE



WHAT TO DO ABOUT THAT TRADE-MARK

(From Page 24)

anyone who feels that he would be injured by the registration of the mark, may file an opposition to its registration. Whether such an opposition is sustained or not must then be determined.

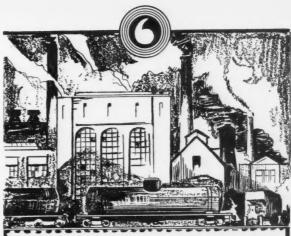
Foreign Trade-Mark Protection

WNERS of trade-marks having business or prospective business in foreign countries should ascertain the trade-mark laws in those foreign countries so that they may take proper steps in time to protect their rights. In many foreign countries it is possible for a resident to obtain registration of a trade-mark without having actually used it in trade. Such registrations of marks owned in the United States have been procured by unauthorized persons who employ the registrations to stop the importation into the country of goods bearing the mark. It is desirable, therefore, for American manufacturers to protect their marks by registration in those foreign countries with which they may do business before sending goods bearing the marks into the foreign countries. Registration in the United States generally is essential before registration in foreign countries, and after registration has been procured in this country the owner of the mark may frequently procure registration in the foreign countries before he has actually used the mark there. The duration of a certificate of registration in foreign countries varies according to the local laws, but frequently runs for the same period as the United States registration.

If a proprietor is using a trade-mark on goods sold in interstate commerce, he should not be satisfied with state registration only. Generally, state registration is valuable and the state courts can afford a remedy for infringers within the state, but with a large field for products such as inks and materials going into the production of inks, owners of valuable trade-marks should have Federal registration.

A word about prints and labels is necessary, since they are confused, at times, with trade-marks. The former two differ from trade-marks in that they must be descriptive of some goods and all the matter on the print or label be covered, instead of some special portion. A label must be attached to the goods, while a print cannot be so attached, i. e., it may be an advertisement in a periodical, in a vehicle, or the like. Prints and labels may be copyrighted in the United States Patent Office for 28 years and renewed for a like period under the Copyright Law of 1874. Copyright gives the owner the right to sue directly in the Federal courts and to obtain damages fixed by law. The notice of copyright should appear on the prints and labels prior to filing application, and appear thereafter on every copy printed.

A non-toxic germicidal soap contains a phenyl mercuric salt. Lever Brothers Ltd. Canadian Patent No. 351,187.



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PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, Oil & Fat Industries.

Fatty Alcohols in Soaps

HE higher alcohols or mixtures of alcohols having from 8 to 20 carbon atoms in the chain, which are derived from naturally occuring fatty acids by direct catalytic hydrogenation at high temperatures and pressures, are particularly well suited for use as agents for the superfatting of soap and soap products. This method of improving soaps has been patented by E. I. du Pont de Nemours & Co., British Patent Specification 424,283, described in *Perfumery and Essential Oil Record*, 26, 157-9 (1935).

The processes of catalytically preparing higher alcohols and the processes of soap manufacture are so related as to make it economically and scientifically desirable to combine the necessary operations into a unified process. This may be regarded as a new method for the manufacture of superfatted soap of a special kind. This kind of soap may be produced by taking a semi-finished or neutral stock soap, and adding an appropriate amount of a fatty alcohol having from 8 to 15 or 20 carbon atoms. The alcohol and soap mixture is then milled until uniform in appearance and texture, and molded in the usual manner.

An alternate procedure is to add the pure alcohol to the fats or oils prior to saponification with aqueous alkali. Also a hydrogenation process may be carried out on a small part of the soap stock fat to convert it more or less completely into alcohols, and this mixed with the remainder of the stock fat before saponification. Still another method is to subject the whole of the soap stock fats to a very mild hydrogenation, which will convert only a small part of the glycerides to alcohols. When liquid fats are employed that require hardening, the production of a sufficient concentration of fatty alcohols may be obtained simultaneously with the hardening process by carrying out the necessary hydrogenation in the presence of a suitable catalyst and at sufficiently high temperatures and pressures. Subsequent soap production from the mixed fats and alcohols

may be accomplished by any of the usual methods of saponification.

A smooth white toilet soap having good detergent properties is prepared as follows: Saponify tallow containing 10 per cent of coconut oil with sufficient caustic soda to give a product essentially free from salt and unsaponified fat, and containing not more than 0.2 per cent of free caustic soda. Chip and mill 100 pounds of the stock soap with 8 pounds of stearyl alcohol, prepared by the hydrogenation of pure stearic acid, 4 pounds of starch and 16 ounces of a suitable perfume blend. When the mass is perfectly homogeneous, the charge is passed through the plodder, cut and pressed. Instead of the milling process the stock soap and stearyl alcohol may be melted, fillers and perfumes added, and the charge framed, cut and pressed.

A textile soap filled with high molecular weight fatty alcohols is prepared as follows: Mix with the aid of heat 900 pounds of palm kernel oil, 600 pounds of cottonseed oil and 400 pounds of tallow. Withdraw 200 pounds of the mixed fat and subject this portion to catalytic hydrogenation at 385° C. and 2000 pounds pressure by passing it continuously with an excess of compressed hydrogen over a catalyst of mixed zinc and copper chromites. The crude hydrogenated oil is added to the main fat stock, and the mixture run into and boiled with 1555 pounds of caustic soda lye of 30° Be. The charge is sprinkled with 50 to 100 pounds of 9° Be. brine, finished with 100 pounds of palm kernel oil and allowed to settle, after which it is framed as usual.

A cold-process toilet soap is prepared as follows: one hundred pounds of coconut oil is mixed with 8 pounds of copper chromite powder and heated to 250° C. in a stirring autoclave under a hydrogen pressure of 100 atmospheres, until the decrease in pressure corresponds to the theoretical value for hydrogenation of 5 to 8 per cent of the carboxylic groups in the oil. The oil is cooled, filtered and mixed with 50 pounds of 38° Be.

soda lye in a stirring kettle at a temperature of 35° C. When saponification is complete and the mass commences to thicken, it is perfumed and run off into frames in which it is allowed to congeal slowly. If a low-priced product is being prepared the perfume may be omitted, since the lower-boiling members of the coconut oil alcohols give a desirable odor to the product.

A castor oil soap is prepared as follows: Castor oil is subjected to catalytic hydrogenation by passing it continuously with hydrogen over a catalyst prepared by co-precipitating the chromates of zinc, copper and cadmium in the molecular ratio of 82.5:10:7.5 and igniting at 600° C. to form the corresponding chromites. The temperature of hydrogenation is 390° C. and the hydrogen pressure 2700 pounds per square inch. The decrease in the saponification value resulting from hydrogenation is about 60 per cent, while the iodine number is lowered from 85 to 55. The product is fluid and is subjected to a second hydrogenation, when the oil congeals to a white solid possessing a fragrant odor. The product is converted to a highly superfatted soap by saponification with the theoretical amount of caustic soda calculated from the saponification number determined after hydrogenation. The content of fatty alcohol is higher than is normally desired in a commercial superfatted soap. Such a product is a suitable material for superfatting other soaps. A white stock toilet soap may be obtained by melting or milling the toilet soap with 10 to 15 per cent of the stock just described. The alcohols used in accordance with this invention are produced by synthetic means from fatty acids and their derivatives, and therefore do not cover alcohols which have been obtained from natural products, or by mere saponification of natural products.

The advantages of incorporating higher fatty alcohols into soaps and soap products are several. The higher alcohols impart to the soap and to the products washed with it a smooth, soft feel not usually produced in the absence of the alcoholic fillers. After washing, textiles remain soft and fluffy. The effect on the skin is free from the harshness ordinarily resulting from complete removal of the natural oils with ordinary soap. These advantages are gained without risk of rancidity, since the fatty alcohols are immune to fermentation processes and probably possess mild germicidal power of their own.

In the manufacture of toilet soap, the solid higher alcohols increase the capacity of a soap of a required hardness for retaining water, impart an improved grain, and result in an improved gloss on the surface of the bar. The fatty alcohols may be an aid to detergency under conditions encountered with sea water or other mineral-containing waters. The more volatile alcohols derived from coconut oil fatty acids or prepared by the destructive hydrogenation of castor oil, have strong perfuming qualities.

In hydrogenating a fat to form alcohols, the reaction is never complete, making it necessary to subject the

crude hydrogenation product to a careful separation in order to isolate the pure alcohol. By combining hydrogenation with saponification, the undhydrogenated portion is converted to soap. It is a common practice to harden certain soap fats and it is entirely feasible to produce alcohols during the hardening process and without much extra expense, provided suitable temperatures, pressures and catalysts are selected.

CONTINUOUS SOAP PROCESS IN RUSSIA

According to information received in London, Soviet Russia, in connection with its program of research in the oil, fat, and soap industries, is now engaged in tests of a new saponification process which is claimed to be both continuous and rapid. The preliminary experimental plant deals with one ton of soap per hour and consists of a measuring vessel, a mixing vessel, and the reaction pan, together with suitable heating, spraying, and stirring devices.

The charge of 99 per cent fatty acids, with or without rosin, and assitol (naphthenic acids) in the correct proportions, is thoroughly mixed and heated and then sprayed into the soap pan. Caustic soda solution is sprayed in, together with filters such as colloidal clay, trisodium phosphate, and other materials, which may include finely powdered soda ash. A temperature of 70-80 degrees C. is attained, mainly due to heat of reaction. The soap mass is cooled in thin layers on chilling-rolls, after which it is shredded to a thickness of 0.2 mm., and then pressed into cakes and stamped. The entire process is mechanical, and it is claimed to be very rapid, taking only a few minutes. Steam and water consumption is reduced and labor costs are lessened, factors which offset the cost of the extra power required for the process, say the report.

NEW METHOD FOR IODINE NUMBER

Iodine number may be determined titrimetrically by the addition of bromine vapor. The principle of the method consists in the reaction between a weighed quantity of bromine and the solid, liquid or gaseous test substance. Excess bromine vapor is titrated. Substances with ordinary double bonds require about 200 per cent of excess bromine with a reaction period of 15 minutes. For sterically hindered double bonds an excess of 400-500 per cent and a reaction time of 1 hour becomes necessary. The calculation is as follows: Iodine number equals $(12.69 \times 100/c) [(10a/79.92) - b]$, and that of the number of unsaturated bonds: Number of double bonds = $[(10a/79.92) - b] (M/2 \times 10$ \times c), where a equals initial amount of bromine in mg., b equals bromine titrated back as excess in cc. of 0.1 N solution, c equals weight of sample in mg. and M equals molecular weight. Experimental data show good agreement with theoretical values. A considerable saving in the cost of determinations is claimed for the new method over older methods. E. Rossmann. Angew. Chem. 48, 223-6 (1935).

Sulfated Fatty Alcohols

Review of Analytical Data on Commercial Samples of These Newer Detergents

S YET only a limited amount of work has been done on the analytical estimation of the fatty alcohol sulfates. The sodium salts of the alkyl sulfates of the type of lauryl sulfate are so similar in properties and uses to soap and to sodium salts of sulfonated fatty acids or even to sulfonated fatty glycerides that it is often necessary to differentiate them chemically. Recent investigations reported* by Frank M. Biffen and Foster Dee Snell in Ind. Eng. Chem., Anal. Ed. 7, 234-7 (1935), furnish data on the behavior of commercial forms of fatty alcohol sulfates when these are submitted to analytical procedures commonly applied to chemically related compounds. The data indicate that commercial alkyl sulfates are mixtures containing mainly sodium alkyl sulfate mixed with substantial amounts of sodium sulfate. An outstanding characteristic is the instability of these products to heat.

The particular materials used as a basis of this work were obtained from E. I. du Pont de Nemours & Co. The grades investigated were Duponol WA concentrated, referred to as WAC; Duponol WA double double concentrated, referred to as WAD, and Duponol ME dry, referred to as ME. In trade terms, these are understood to be in order of increasing quality. All are dry, flaky solids. In production it is apparently necessary to leave considerable sodium sulfate in the product. This is not unrelated to practice in the sulfonated oil industry.

In solution the distinction between sulfonated oils, soaps and alkyl sulfates is by no means obvious. On acidification, soaps do not lather and the liberated free fatty acid separates readily on warming. Many sulfonated oils separate in the cold on acidification, but some are moderately stable to acid and will foam on on shaking after acidification in the cold. The alkyl sulfates may be acidified without resulting in separation, and the solutions still give a good lather. This is naturally related to many of the purposes for which they are used. When a sulfonated oil solution is heated with acid for a few minutes with agitation and filtered, the filtrate will give a test for sulfate. Similarly, though in a different manner, alkyl sulfate will eventually hydrolyze and sulfate may be detected. It is necessary, however, to heat the acidified solution much longer. A clear solution of alkyl sulfate and acid under this treatment gradually becomes milky-looking and finally the higher alcohol separates out on top, leaving a clear acid solution beneath, which gives a test for sulfate. These properties are so confused by the presence of sodium sulfate in both sulfonated oils and alkyl sulfate

that they require close comparison of results for even qualitative use.

More than a dozen of the analytical methods usually applied to soaps or to sulfonated oils were applied to the three grades of sodium alkyl sulfates. Of these, a few show promise for quantitative work.

Loss at 110° C.—Heat the samples in an open petri dish in an air oven maintained at 110°. The alkyl sulfates or their decomposition products were found to be volatile to a considerable extent at this temperature. This loss occurs over a period of at least a week, but the weight becomes constant in 9 days. The loss is greater, as would be expected, with increase of the alkyl sulfate present. This loss approximated a decomposition of sodium lauryl sulfate to give a hydrocarbon which is volatile, and sodium bisulfate which remains in the residue. That this is approximately the case was confirmed by determination of sulfur trioxide in a sample which had been in the oven for 9 days. The loss on heating at 110° might be assumed to give:

$$C_{12}H_{23}SO_4Na = C_{12}H_{24} + NaHSO_4.$$

The substance darkens readily in the oven, which in itself is a helpful means of distinguishing it from soap and sulfonated oils.

ETHER EXTRACT.—Extract with ether in a Soxhlet apparatus, heated on a water bath. There is some extraction for more than 8 hours.

Organic Sulfate by Benzidine Method.—Transfer an amount of dry sample or sample solution to contain 0.025 to 0.5 grams of sodium alkyl sulfate to a 250 cc. flask. Dissolve in water and dilute to about 25 cc. Neutralize if necessary. Add 10 cc. of 0.05 N benzidine hydrochloride solution, or if necessary, 20 cc. Shake until the precipitate flocculates well and let stand for 10 minutes. Filter through paper and wash the flask and filter 3 times with 10 cc. portions of distilled water. A trace of residue adhering to the flask need not be quantitatively washed out. Wash the precipitate on the filter 3 times and let it drain well. Drain the water from the stem of the funnel and discard the filtrate.

Wash the precipitate on the filter with hot alcohol into the original flask until about 50 cc. of filtrate are obtained. Add 3 to 4 drops of 0.04 per cent of bromocresol purple in alcohol. Heat on a water bath to slight boiling. Titrate the hot solution with $0.01\ N$ sodium hydroxide solution to a yellow end point. Correct for a blank, obtained by washing a similar paper with hot alcohol and similar titration to the same end point. Calculate the titration to the sodium alkyl sulfate, using the factor corresponding to the alkyl group

^{*} Before American Chemical Society.

present or the empirical factor for the mixture present.

Organic Sulfate by Hart-Grimshaw Method.—Add 50 cc. of 0.5 N hydrochloric acid to a solution containing 2 grams of alkyl sulfate, previously exactly neutralized to methyl orange with 0.5 N hydrochloric acid. Heat in a water bath for 2 hours using a reflux condenser. The solution gradually becomes cloudy, and finally the fatty alcohol separates out on top, leaving the water layer clear. It is necessary to use a water bath. If direct heating is used, violent bumping occurs even in the presence of glass beads. Wash down the condenser, add 30 grams of sulfate-free sodium chloride, cool, and add 20 cc. of ether to dissolve the separated alcohol. Titrate the aqueous layer with 0.5 N sodium hydroxide solution to a methyl orange end-point.

From the results it should be possible to calculate the amount of sodium alkyl sulfate present if an average molecular weight representative of the sodium alkyl sulfate were available. This is complicated by the fact that the alkyl sulfates are mixtures, so that an average value would be required for any type of product. Assuming sodium lauryl sulfate to represent the average molecular weight, the results are substantially the same as for the mixture of fatty acids normally present in coconut oil.

Results by different methods are shown in the following table, expressed as per cent of sodium alkyl sulfate present in the commercial products previously mentioned:

mentioned:			
	WAC Per Cent	WAD Per Cent	Me Per Cent
From organic sulfate by benzidin	e		
method		67.4	77.2
From organic sulfate by Hart	-		
Grimshaw method	. 44.6	66.3	77.1
From loss at 110° C., less ether	-		
extractable, divided by 0.583	47.9	65.5	79.1
From alcohol extract	. 51.8	78.7	87.4
From ether extract after hydrolysis	3.		
less ether-soluble fraction orig	_		
inally present		66.8	72.8

The values by the benzidine method serve as a basis for comparison, since the method is concise and straightforward. Its applicability depends on the selection of a proper conversion factor. The lauryl radical was assumed here for purposes of calculation. The method is not applicable in the presence of soap or sulfonated oil.

Organic sulfate determinations by the Hart-Grimshaw method give values which should be accurate in the presence of soap but in the absence of sulfonated oil. As in the benzidine method, a conversion factor is required. The fact that the results by the two methods check indicates agreement between the two methods as to the amount of sulfur trioxide present in combination with the alkyl groups. It does not validate the factor used in conversion to sodium alkyl sulfate.

The loss on heating at 110° C. bears a constant relation to the probable sodium alkyl sulfate content. Without the complication of all the figures, it can be stated that the ratio of the loss at 110° less the ether-extract-

able material, to the most probable figure for the sodium alkyl sulfate content shows an average value of 0.600 with a maximum deviation of 0.027. The theoretical figure according to the assumed reaction is 0.583. This is so complicated by side reactions or otherwise as to give only an approximation. It is to be noted that the loss is higher than theoretical rather than lower. The method is suitable only for approximate estimation and should apply in the presence of soap and/or sulfonated oil.

Among other methods studied are alcohol extraction and ether extraction after acid hydrolysis. The alcohol extract gives an unduly high value for the sodium alkyl sulfate. Although sodium sulfate is insoluble in alcohol, it shows some solubility in an alcoholic solution of sodium alkyl sulfates. It is probable that inaccuracies in drying are a factor. However, the possibility must be considered that calculation to sodium lauryl sulfate is incorrect; that the average weight of the alkyl radical is greater than lauryl; therefore, that the factor used in calculation from the benzidine and Hart methods is inaccurate and that as a result the values for alcoholextractable matter are nearer the true sodium alkyl sulfate values than either of the other results. The values for loss at 110° tend to show that this is not the case.

Determination from the ether extract after acid hydrolysis gives only a rough approximation. It will be in error by the amount of ether-extractable material in the original sample due to uncombined fat, fatty acid, and unsulfated alcohol. This error would be magnified by the factor used, and, in the absence of knowledge of the distribution of the alcohols in the ether extract, an accurate factor is no more readily obtainable than for calculation from the organic sulfate. Correction for soap or sulfonated oil present would be necessary.

Much additional work needs to be done on commercial mixtures before final methods in full detail can be recommended as applicable to sodium alkyl sulfates in various combinations.

The rate of formation of calcium soap, the suppression of its formation in the presence of dispersion media, and its quantitative re-solution can be determined by means of B. Lange's photoelectric colorimeter. This measures the light absorption by turbid calcium-soap suspensions. At a light absorption under 68 per cent the calcium soap is present in such a finely dispersed form that it does no harm to textiles. By means of solutions of Igepon T powder or of Gardinol KD powder, it is possible to disperse and then to dissolve freshly precipitated calcium stearate and oleate. None of the dispersing media tried were capable of dispersing or dissolving filtered and dried soap. Sulfonates of unsaturated alcohols disperse and dissolve calcium soap more quickly than do sulfonated esters or amides. Sulfates of saturated alcohols exhibit a lower dispersion power. Kurt Lindner. Monatchr. Textil.-Ind. 50, 65-6, 94-5 (1935).

THREE recent packaging equipment installations in soap plants, marking the movement this year to replace more and more old equipment with new. At the top is shown an installation at the plant of the Los Angeles Soap Co., Los Angeles, of a Miller Semi-Automatic Wrapping Machine, which wraps five bars of White King Soap and a face cloth in cellophane. The photograph below shows the packaging of soap flakes at the Chicago plant of the Armour Soap Works on equipment built by Triangle Package Machinery Co. The unit consists of a semi-automatic bottom carton sealer, semi-automatic two-station gross weigher with plungers and a full automatic top sealer with drier. This com-

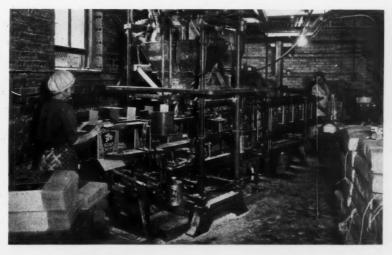




aging unit with automatic scale. It fills five-pounds automatically at commercially accurate weights, and seals or glues top or bottom automatically at a speed of 12 per minute.

Material rich in oil such as soybeans is extracted with a mixture of methyl alcohol and chlorinated hydrocarbon, for example ethylene chloride. After extraction the solvent is separated into two layers. The lower layer contains pure oils in the hydrocarbon solvent, while the upper alcohol layer contains impurities. The residue obtained by the process contains only a small amount of impurities. Honen Seiyu K. K. Japanese Patent No. 109,730.

bination which works on 21/2 and 5 pound packages, requiring two operators as shown, one for semi-automatically glueing of the carton bottoms and the other for transferring packages from one station to another on the weigher. This equipment handles from 8 to 14 packages per minute depending on size. Above the gross-weigher hopper is a stoker which automatically feeds the correct amount of flakes to the hopper from the storage bin. Below is shown an installation at the plant of Haskins Brothers & Co., at Omaha. The equipment which is handling five-pound packages of soap flakes, was built by the J. L. Ferguson Co. The equipment is termed Packomatic soap flake pack-



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ON PRODUCTS AND PROCESSES

In the manufacture of stable detergents which release oxygen, the double decomposition products of fatty alcohol sulfates and sodium pyrophosphate are treated with inorganic per-compounds. Karl Butz. Canadian Patent No. 351,437.

Soap and glycerol are manufactured by pumping a mixture of saponifiable oil and an aqueous solution of saponifying agent under high pressure through a heated narrow reaction tube. The latter is made of electrically conducting material and is heated by passing an electric current through it. Garbinton Ltd. and John B. E. Johnson. British Patent No. 423,188.

A composition which cleans and dyes contains soap, sodium borate, soda ash, perfumed turpentine oil and a dye for various shades. Louis Rouges. French Patent No. 779,227.

Shampoos to be used with hard water may be made of fatty alcohol sulfates or sulfonated oils, which do not form insoluble calcium salts. The shampoo may be made of soap provided an effective emulsifying agent is present to disperse the precipitated calcium soap and keep it in colloidal solution. The presence of 5 to 15 per cent of sulfonic acid derivatives, based on the weight of soap present, should give a soap solution which will be free from precipitates in hard water. A part of the soap will be lost, even though the precipitate is not visible, so that increased amounts of the shampoo have to be used over what would be necessary in soft water. A. Schnitzler. Seifen-, Oel- und Fett-Ind. 21, 174-5 (1935).

Oils, fats and fatty acids are bleached by heating to a point between the melting point and 100° C. with the addition of an alkali or alkaline earth hypochlorite in water. The bleaching agent is added in successive small amounts. The oils and fats are cooled before each addition, then stirred with the hypochlorite, allowed to settle, and finally reheated. Mathieson Alkali Works. French Patent No. 778,882.

A wetting agent for textiles consists of a mixture containing Turkey-red oil, waste sulfite lye and an alkali phosphate. I. G. Farbenind. A.-G. French Patent No. 777,860.

Soap is made from the oxidation products of petroleum by saponifying with alkali in the absence of water. The molten anhydrous soap is stirred in a closed vessel while passing in a current of steam, carbon dioxide, or toluene or xylene vapors. Unsaponified materials are removed. The crude saponification products of hydroxy acids and lactones are transformed into unsaturated acids by the elimination of the elements of water. The steam removes unsaponifiable materials such as unchanged petroleum, tars, partially oxidized substances, and leaves a white odorless soap. Animal or vegetable oils or fats may be added to the crude saponified product to produce mixed soaps. Colgate-Palmolive-Peet Co. British Patent No. 423,279.

An acid such as benzoic acid is added to toilet soap to neutralize free alkali liberated during washing, Maurice H. Jolivet. French Patent No. 778,000.

Detergents for washing yarns or textiles, contain washing agents, paraffin wax and dispersing agents that are soluble in the wax. In an example, 100,000 parts by weight of white goods are washed at 98° in a rotary washing machine with 265,000 parts of water, 500 parts of potassium soap, 500 parts of calcined soda ash, 3.5 parts of sodium butylňaphthalenesulfonate, 3.5 parts of benzyl alcohol, 150 parts of purified paraffin wax and 7 parts of condensation product of oleic acid and triethanolamine. I. G. Farbenind. A.-G. British Patent No. 423,238.

Wetting and washing agents are made by sulfonating tertiary alcohols containing at least one higher aliphatic radical and (or) a hydroaromatic radical. The alcohols may be first treated with dehydrating agents. Examples are given of sulfonation products of mixtures of higher alcohols corresponding to the fatty acids of soybean oil, linseed oil, coconut oil and whale oil, and containing 2 alkyl groups attached to the carbon of the alcohol. Henkel & Cie. G.m.b.H. French Patent No. 778,373.

Salts of sulfonic acids useful as wetting, washing or emulsifying agents are dissolved in water in the presence of urea or thiourea. Highly concentrated solutions are obtainable in this way. For example, 34.5 parts of sodium butylnaphthalenesulfonate and 17.2 parts of urea may be dissolved in 48.3 parts of warm water. I. G. Farbenind. A.-G. German Patent No. 612,417.

By adding a monoglyceride, the crystalline property of fatty materials such as saturated higher alcohols, hardened oils, waxes or solid fatty acids, is decreased. Asahi Denka Kogyo K. K. Japanese Patent No. 109,441.

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COMPOSITION OF DAIRY DETERGENTS

Apparatus for use in the dairy industry usually consists of a base metal of copper or steel plated with tin. Copper in contact with milk affects the flavor, while tin has no such effect. Given a tin coating which is initially satisfactory, its useful life will depend on its resistance to chemical attack, barring mechanical damage. In general, the attack on tin takes place almost entirely during periods of cleaning, in which alkaline detergents are used. Frequent cleaning of tanks is necessary in order to remove deposits produced in the processing of milk which would otherwise favor the retention of bacteria. An ideal cleaning agent would remove this film without attacking the tin.

A hot solution of soda ash or crystalline sodium carbonate is used extensively by the dairy industry, as it removes the film. But it also attacks the tin, forming a soluble stannite. It has not been found possible to reduce the attack to any marked extent merely by reducing the concentration of the soda ash in solution. The first step was to investigate the role of oxygen in influencing the rate of corrosion in alkaline solution. This was found to be very great. The results suggested that if oxygen could be completely excluded, the attack would be negligible. Accordingly several reducing agents were added to the cleaning solution to see whether they would inhibit corrosion. Sodium sulfite was found to be superior to other reducing agents for this purpose. Experiments in open beakers at temperatures of 40° to 100° C. indicated that the sulfite retains its efficiency at all temperatures.

Experiments were next carried out to study the effect of concentration of alkali in relation to sodium sulfite. Concentrations of sodium carbonate and sodium hydroxide solutions varying between 0.02 and 5 per cent were used, keeping a ratio of alkaline material to sodium sulfite of 10:1. It is noteworthy that the maximum rates of attack corresponded to concentrations of 0.25 per cent and 0.1 per cent for sodium carbonate and sodium hydroxide respectively. When allowance is made for the water of crystallization these concentrations are almost equal. The results showed that in each case the sodium sulfite was a satisfactory inhibitor over a wide range of alkali concentrations down to 0.1 per cent. The important factor was clearly the amount of sodium sulfite employed, and not the sulfite-alkali ratio. This is to be expected, as the amount of dissolved oxygen tends to increase as the solution is made more dilute.

Numerous other experiments were conducted. It was proved that the corrosion of tin and tin-plated copper in hot sodium carbonate and sodium hydroxide solutions is largely controlled by the dissolved oxygen concentration of the solution, and only to a slight extent by temperature and concentration of alkali. Sodium sulfite as an inhibitor of corrosion has the advantage of being inexpensive, relatively stable in the solid state and readily soluble in water and alkaline solutions, while the product of oxidation, sodium sulfate, is unlikely to have

any deleterious effect. By the addition of sodium sulfite to the alkaline solution, the rate of attack on tin may be reduced ninety per cent.

With the concentrations normally used in cleaning operations, a ratio of 1 part of sodium sulfite to 10 parts of crystalline sodium carbonate is recommended. Where soda ash or caustic soda is used, a ratio of 1:4 would be suitable. In other circumstances the concentration of sodium sulfite may be increased as desired. The mechanism of the reaction appears to consist in the removal of dissolved oxygen from solution. R. Kerr, J. Soc. Chem. Ind. 54, 217T-221T (1935).

COLOR OF OILS BY TINTOMETER

A photo-electric tintometer is an excellent instrument for measuring the color of oils when a 2-inch cell containing a 1 per cent solution of copper sulfate is placed in front of the usual Wratten color filters. The copper sulfate solution removes all of the disturbing infra-red rays to which the photo-electric cell is very sensitive. Photo-electric readings using a Wratten No. 71A filter, as compared with Lovibond red units obtained with a 1-inch cell were as follows:

Oil Sample	% Extinction	Lovibond red units
Peanut	 . 1	0.8
Teaseed	 15	2.0
Linseed		2.4
Soybean 1	 55	4.8
Sovbean 2	CE	5.1

Readings by the new method check to within 1-2 per cent when made by different observers. The source of light does not have to be standardized. E. R. Bolton and K. A. Williams. *Analyst* **60**, 447-54 (1935).

Adsorbent clays are not beneficial in household soaps. In adsorption tests with washed kaolin, kaolin boiled with 5 per cent soda ash solution, kaolin ground in a colloid mill, and with kieselguhr, floridin, franconite, silica, glauconitic clay and some clays of Russian origin, only glauconitic clay and an American floridin adsorbed a dye more strongly from soap solution than from pure water. Kieselguhr did not adsorb the dye from either soap solution or pure water. The other clays adsorbed from 9.3 to 100 per cent of the dye from pure water and from 0 to 64 per cent from soap solution. When clays are to be used as wetting agents, no substance should be added which will tend to use up their adsorptive power. When it is desired to use an inorganic filler in soap, preference should be given to those with low adsorptive capacity such as kieselguhr. B. Tyutyunuikov, N. Perstnev, Z. Pleshkova and A. Chernichkina. Masloboino Zhirovoe Delo 1935, 7-15.

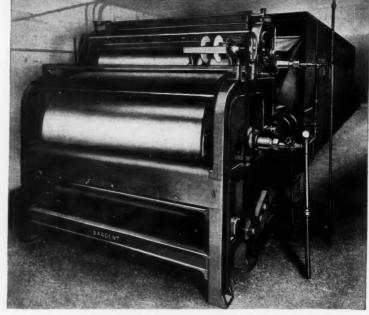
An apparatus for extracting fatty oils consists of a series of extractors for treating seeds or other oil-bearing material in counter-current with a solvent. The first extractor consists of a chamber in which is mounted a perforated feed pipe through which the material passes into a second extractor. Karl Sohler. British Patent No. 422,530.

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The oleic and linoleic acid contents of various Indian oils and fats were determined from figures on the thiocyanogen numbers (A) and the iodine numbers (B), according to the following formulas: Percentage of saturated acid equals 100-1.158A; percentage of oleic acid equals 1.162(2A-B), and percentage of linoleic acid equals 1.154(B-A). Oleic and linoleic acid, respectively, were found present in the following percentages: Almond oil 78.6, 14.0, peanut oil 56.15, 25.9, coconut oil 10.3, 0, olive oil 26.8, 45.0, beef tallow 33.6, 5.2 and mutton tallow 32.0, 6.8. It is concluded that in oils and fats that yield no hexabromide number and contain no hydroxy acids, the oleic and linoleic acids can be determined by the use of Kaufmann's thiocyanogen number. N. N. Godbole and Sadgopal. Allgem. Oel. u. Fett-Ztg. 31, 435-8.

SPECIAL CLEANERS

(From Page 22)

a sponge and then wipe it off with a dry cloth. The foam is supposed to attract the dirt in some mystic fashion and thus remove it. Again one is told merely to apply the foam with a sponge, using long, not circular strokes, and not to rinse or wipe off. It is difficult to judge where the dirt is supposed to disappear to in a case like that. Of course the real reason in directing the user to work with the foam only, is to avoid having too much water applied. If the stuffing of a chair were saturated with soapy water, putrefaction might develop, the goods might shrink and ruin the appearance of the chair, and mildew might also well appear. If the wood parts were thoroughly wet, there would be cause for swelling and distortion. So the directions are not as foolish as they might appear at first sight.

Some upholstery cleaners contain a small amount of free fatty acid such as stearic. This is probably put in to leave a sheen on the fabric. There is no reason why it should do any harm or any good, except that if too much is deposited, the fabric will be left looking duller instead of glossier.

Whether water is to be added to the liquid products when used, depends of course on the concentration. A two percent soap solution is a satisfactory strength for use directly on fabric. Frequently a stronger concentration is sold and then water added by the consumer according to directions. One commercial product contains about 92 per cent of water and the balance ammonia soap with a slight excess of free ammonia. The fatty acid present in the soap is oleic. Another liquid product has an odor of both ether and ammonia. Analysis shows about 2 per cent of ethyl ether, 2 per cent of potash soap, one and one-half per cent of concentrated ammonia water, and the balance plain water. Another liquid product has an aromatic odor. Its approximate composition is about 4 per cent of triethanolamine soap as oleate, 1 per cent of ethylene dichloride, 5 per cent of isopropyl alcohol and the balance water.

A rug cleaner which is stated to disinfect and mothproof as well as clean, contains nearly all the common alkaline salts. It is a powdered mixture and has the characteristic odor of paradichlorbenzene. The approximate composition is 23 per cent of trisodium phosphate, 27 per cent of borax, 3 per cent of sodium metasilicate, 30 per cent of soda soap, 8 per cent of soda ash, 3 per cent of para-dichlorbenzene, and a few per cent of moisture. The user is directed to dissolve the powder in boiling water and apply the solution with a brush. Just how the para-dichlorbenzene is going to have any effect on the rug remains a mystery. It is insoluble in water, so naturally it cannot be transferred in solution. It appears that the function of the para-dichlorbenzene is to give the product the odor of a disinfectant. We wonder if this is all that is necessary in order to convince the

A somewhat similar powdered mixture has a naphthalene odor but makes no claims based on this. It contains about 1 per cent of naphthalene, 30 per cent of borax, 15 per cent of trisodium phosphate, and 54 per cent of sodium tallow soap. The powder is to be dissolved in hot water and applied hot. Like para-dichlorbenzene, naphthalene is insoluble in water. As both dichlorbenzene and naphthalene are volatile, and are present in such small amounts, it is probable that they are removed by volatilization shortly after the container is opened. Again the function seems to be that of providing an odor, which however, can not be expected to be very permanent.

A rather different type of product recommended for cleaning automobile upholstery is found in the form of a thin white emulsion. This contains about 27 per cent of coal-tar naphtha or crude toluene, less than one per cent of tallow soap, less than one per cent of triethanolamine soap as oleate, and the balance water. The cleaning action is that of the organic solvent which would attack grease. It is made non-inflammable by the presence of water and the two types of liquid are emulsified with a minimal amount of soap.

The great majority of the rug and upholstery cleaners sold at the present time are the water-soluble, strongly foaming kind. Used as directed, a minimum amount of wetting with the aqueous solution occurs. Arguments in favor of this type of treatment as compared with previous methods of cleaning are that it is much less expensive than dry-cleaning, and that it avoids harmful effects of ordinary soap-and-water-washing. It is claimed that soap and water take out the sizing on the bottom of a rug and also that a residue of soap is left in the nap which is difficult to rinse out with clear water. Using the suds only prevents excessive wetting, so that the liquid does not reach the sizing on the back, and of course drying is rapid. A doubting Thomas or a sceptical housewife might question how much actual cleaning is accomplished under these conditions. However, results are what count, so find out what your product will really do before you put it on the market.

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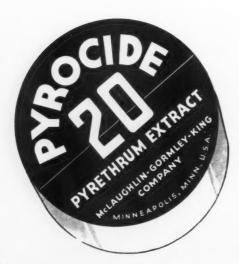
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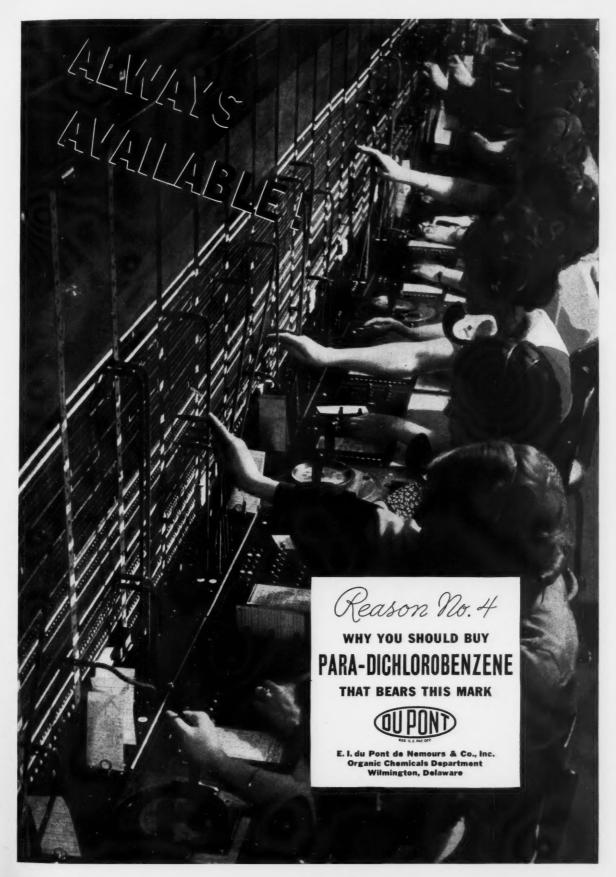
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PYRETHRUM POWDER: Finest available, with a known high pyrethrin content. Milled with modern equipment which makes heat accumulation impossible. Ground extremely fine—contains more killing particles—remains suspended in the air longer. More effective and economical because it comes into more intimate contact with vital parts of insect's body.

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Many valuable insecticide facts are contained in a recent article on "Pyrethrum and Derris Powders—A Study of Their Protection from Injurious Action of Light and Air." We shall be glad to send you a copy upon request. McCormick & Co., Baltimore, Md.



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FELTON COLOROMES are uniform, 100% effective, thoroughly tested, dependable and economical. They come in all wanted fragrances and colors (or colorless if you wish)—at prices which make them worth your serious consideration.

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S A N I T A R Y P R O D U C T S



A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

The Editorial View

URING the past several months, the need for definite, standard specifications for household insecticides has been more apparent than ever. Today, there is no complete specification for any household insecticide which is a nationally recognized standard. The National Association of Insecticide & Disinfectant Manufacturers does have a standard, but it has only to do with knock-down and kill by the Peet-Grady Method. It sets no standards for other factors and is consequently incomplete. confusion among industrial and institutional purchasers is great at this time, and manufacturers of low-grade insecticides are taking advantage of this confusion. The makers of better quality products complain constantly about the situation, but do little else to find a remedy. It is our belief that a nationally-recognized set of specifications, complete and practical, is the

In various parts of the country, states, cities, and individual institutions have drawn what purport to be insecticide specifications. Even the U. S. Army, apparently recognizing that no specification worthy of the name exists, is undertaking to write its own. But from what we have seen, many of these individual specifications are impracticable, some are even ridiculous, and most all reflect a lack of intimate knowledge of the subject. In our opinion, there is one group of men who have the qualifications and the facilities to write a standard set of practical specifications. These men comprise the scientific committees of the National Association. It is unquestionably their job. Their efforts would undoubtedly receive the full cooperation of the Federal Specifications Board of the U.S. Bureau of Standards, and the specification thus arrived at might very logically become the standard of the Government as well as the industry. Such

a specification, once established and recognized, would go a long way toward rationalization of insecticide purchasing by municipalities, states, institutions and commercial organizations.

O those who have registered pyrethrum insecticides for sale in the State of California, the Department of Agriculture of that state has sent a notice that the use of the terms "nonpoisonous", "safe", "harmless to humans and animals", etc. should be removed from the labels of such products inasmuch as it is the belief of the Department that such statements make the users careless in handling such materials. Well, what if the user is careless? The products are still non-poisonous and safe. If the California authorities believe that such statements will induce people to drink, gargle, or bathe in these insecticides, we think that their fears are not well founded. To be consistent, they should also require a warning tag to be attached to every knife, razor, glass bottle, and bag of salt sold in the state.

TRIAL publicity campaign under the auspices of the National Association of Insecticide & Disinfectant Manufacturers is being conducted over a three-month period. The releases are going to newspapers in all parts of the country under the name of the American Institute of Sanitation. The subjects are primarily connected with the use of insecticides, disinfectants, and antiseptics, and are strictly of an educational character. The work is designed to increase the consumption of all disinfectants and insecticides, and to enlighten the public upon their merits and correct uses. It is to be hoped that this is merely the forerunner for more extensive efforts along these lines.

National Association of Insecticide and Disinfectant Manufacturers

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John H. Wright, Secretary

CHRYSLER BUILDING

NEW YORK

Notes of the Trade

C. H. Sterrett, who for the past year has been engaged as special merchandising counsel for the Edgar A. Murray Co., Detroit, makers of Doom insecticides, completed his work with that company on Aug. 1 and is again located in New York.

J. H. A. Fink, manager of the export department of John Powell & Co., New York, returned July 20 from a six months' trip through most of the countries of Europe and also to Palestine, Egypt, East and South Africa. While in Africa, he visited the Kenya pyrethrum growing district. He reports conditions in both East and South Africa as very good.

Frank J. Reid, manager of the Toronto office of Lehn & Fink Co., recently underwent an operation in the Toronto General Hospital from which he is reported to be recovering satisfactorily.

Bernhardt Bros., sanitary supply jobbers, formerly located at 207 Hopkins St., Brooklyn, have taken new quarters at 395 Atlantic Ave.

Moth Mist Co., formerly at 4645 Clinton Ave., Minneapolis, is now in new quarters at 3738 Grand Ave.

New Treatment Exterminating Co., formerly at 2508 East 10th St., Indianapolis, Ind., has relocated at 339 North Keystone Ave.

Derris, Inc., New York, insecticides and insecticidal raw materials, is on the air with a radio broadcast entitled "Science in Your Home". The program is given over station WOR Tuesdays, Thursdays and Fridays from 4:30 to 4:45 P.M.

Chemical Supply Co., Cleveland, has recently mailed another in its series of direct mail pieces quoting Henry Nelson, general manager of the company, on the importance of control of insect pests.

Neville Co., Pittsburgh, has announced the appointment of George Senn, Philadelphia, as agent in metropolitan Philadelphia, New Jersey, Delaware and Baltimore for the sale of its complete line of resins, solvents, tass, creosote oil, etc.

Kilbite Products Co., Detroit, has started operations in the Professional Building, manufacturing products for the treatment of insect bites.

Klorac Chemical Corp., Brooklyn, has been chartered under the laws of New York State to deal in chemical and cleaning fluids.

The Future of

Household Liquid Insecticides

By JOHN POWELL

John Powell & Company

BEFORE considering the future possibilities of the household insecticide market, especially the liquid insecticide market, it might be well to examine a little of the background of this industry, particularly the basis upon which it developed. The household liquid insecticide industry as it exists today is just a little more than twelve years old. While it is quite true that this type of product was known and was manufactured some years previously, it is only in the last decade that any real development both marketwise and scientifically has taken place. As those familiar with the industry know, there has been great progress in almost every phase of household insecticide manufacture and sale since 1925.

The first liquid insecticides were crudely made and badly perfumed. They were in most cases, highly unsatisfactory to use. Despite these handicaps, large sales were built up on a very profitable basis. Like any new development in industry, there was the usual rush to get some of this new and profitable business, with the result that in a few years, there was a great number of brands, most of which, however, were sold only in a local way. This grand rush had the inevitable effect of cut prices and cut quality. It is an interesting fact that fly spray prices to the consumer declined most at a time when raw material prices were rising sharply. All of this, however, was not an unmixed blessing as we shall later see.

While the cheap inefficient spray is still very much on the scene, it may be stated that in the main, quality standards have been raised, and today's insecticide is a vastly better product than its predecessor. In the early days manufacturers stressed the fly killing properties of their products to the point that in many cases it was felt that they were suitable for no other use. In numerous cases the brand name of products emphasized this feature and unquestionably interfered with a sound development of the industry.

A well made liquid spray of the pyrethrum type is effective against all forms of household insect life, but the early manufacturer was in too great a hurry to bother investigating or verifying this fact. The fact that roaches, mosquitoes, bedbugs, moths, etc., were almost as plentiful as flies made no impression on him whatever. The industry suffers today as a direct result of this shortsighted policy, and whereas the public is fairly well informed that these sprays kill flies, they are by no means as well informed that they are equally effective against the other

forms of household insect life. The moth field is one in which the insecticide manufacturer has been woefully weak in his marketing activity. This may have been due to the fact that the early products, and even some of the better known ones today, would not be safe to use on woolens, etc., because of the inferior petroleum vehicle in which they are offered to the public.

Perhaps of all the necessary developments in the industry, that of developing suitable non-staining oil bases has lagged the most. Even those firms whose primary business was petroleum have either not known the right type of vehicle to use or were indifferent to its development. There are signs, however, that this condition is speedily being remedied, as witness the odorless products now available together with many other high grade petroleum fractions that are adopted to household insecticide spray use. Another disappointing factor in the early struggles of the household insecticide industry was, the absence of adequate and properly constructed sprayers.

Fortunately for all concerned, the old mouth sprayers soon went by the board. That they could ever have been seriously considered as part of insecticide marketing is another sad commentary on the early foresight of almost every manufacturer in the industry. No man, short of a giant with lungs the size of a balloon, and certainly no woman could make effective use of them. Aside from being highly unsanitary and ineffective, their use could only result in a premature and unjust condemnation of the product with which they were offered.

The sprayer, however, was a problem and still is. The insistence of insecticide manufacturers on having low price sprayers regardless of their efficiency unquestionably contributed to the demoralization of sprayer manufacturers and their products. From a marketing standpoint, it should not be essential to give the sprayer away, because it cannot be profitable to give a good sprayer free of charge. The result has been that insecticide users have been given cheap and poor sprayers by the insecticide manufacturer who thus set up another formidable obstacle in the path of complete success of his product. In the field of sprayer manufacture, much remains to be accomplished and the wise manufacturer will encourage the development of adequate and better quality sprayers, for unless he does, his road is effectively blocked against widespread and satisfactory use of his insecticide.

SEVERAL things are vitally necessary to the success of a liquid household spray, and they must be kept constantly in mind if the industry is to prosper and widen its field.

- 1-It must be safe and non-poisonous.
- 2-It must have adequate toxicity against insects.
- 3—Its base must actually be non-staining.
- 4-It must be pleasantly perfumed.

Of equal importance, it must be properly applied with a sprayer that atomizes finely and evenly without squirting the liquid in a stream. Hence the extreme importance of the sprayer. A development of the greatest importance would be a sprayer that atomizes a larger volume of spray with each stroke so that it would not be necessary to pump so many strokes to spray the average sized room properly.

As referred to above, the great rush of would-be manufacturers into the field was not without its compensating features. It at least widened the market for this new type of insecticide and made an increased number of the public, insecticide conscious. The larger manufacturer is wont to believe that since his advertising reaches a great part of the public, no one can long remain ignorant of the fact that good household insecticides do exist. However, if he will post some of his more observing and intelligent representatives on the nearest street corner for the purpose of asking questions of the "public" about insecticides in general, he will be distressed and shocked to find how little is known by this "public" about the whole subject of insecticides and his product in particular. It takes no expert to discern that a new approach is required in insecticide advertising to the public. It would be a nice idea if a new start could be made unhampered by anything except the real facts.

Despite all this, the household insecticide industry has made progress. It is performing a service to pestered mankind that cannot be overestimated. It is no longer necessary to suffer the tortures of biting, sucking and crawling insect life. It is no longer necessary to tolerate disease breeding pests that after all have greatly affected the history of mankind.

It would not take long to convince the average intelligent householder that it actually costs him money when he fails to fight insect life regularly, entirely apart from the great danger to his health and comfort. No clean person knowingly rents a bug infested house or apartment. Therefore, such a place costs the owner real cash and reduces the value of his property. It has been well said that when you touch a man's pocketbook you give him pain in his most tender spot. Bugs destroy his food, which means money. They carry disease germs which cause sickness. This means doctor bills and likewise costs money.

WHAT then is the likely future of the insecticide industry? No one who knows the facts, can regard it as other than very bright. Competition is certainly no worse than in many other lines of trade. In-

secticides are without question, household and farm necessities if insect infestation is to be kept within reasonable bounds. They are equally important as an adjunct to health. Even though in many sections of the country flies, and in some cases mosquitoes, are no longer trouble-some, there still remains a wide assortment of pests to give great concern to the clean householder. The moth, the silverfish, the slicker, the roach, the bedbug and many others are found in abundance wherever man resides.

Here, we say examine an interesting feature of past and recent insecticide advertising which has from the beginning stressed the effectiveness of such sprays against flies. In this stress, the fact that other insects were easily killed by a good spray was entirely lost sight of, so that no emphasis whatever was placed on general insect destruction. The result has been a misconception on the part of the public as to the real worth of insecticides as an important feature of household cleanliness. It is much easier to justify the required expenditure for a can of spray if the purchaser is persuaded that the product is useful against more than one insect. This may sound like a rather simple remark, but those inclined to doubt it will find ready confirmation if they will but briefly question their friends who are not of the industry.

There is some evidence that insecticide manufacturers are at last learning their lesson in this regard, but just as it takes much hammering away to sell a new product, it is going to be almost equally difficult to correct the false impressions that have got abroad due to the short-sightedness of eariler sales and advertising policies.

If insect nuisance is worth fighting, it is just as important to prevent it in the first place. It would unquestionably keep the morale of the housewife if she were in a position to say that she had never been bothered with bugs, but if she is to say this truthfully, she must use a good spray regularly before the infestation occurs. The marketing technique of insecticide manufacturers might well be modified importantly if stress were placed on the absolute necessity of using the spray as the householder cleans to prevent infestation. It would be simple to do at that time and it certainly would prevent a present infestation from getting out of bounds. Moreover, such regular use would prevent infestations of other insects and keep the house clean. Also, of great importance, it would sell a lot more insecticides.

Here, one has the perfect tieup, viz,—a saving of money through prevention of insect damage to food and clothing. Protection of health through the control of disease spreading pests, and a clean home free of these disgusting vermin.

If insecticide manufacturers as a whole can not build a compelling and interesting advertising plan from the wealth of available material, then they are most certainly devoid of imagination. The future of the household insecticide industry is bright, if manufacturers will but use the means at their command to educate the public and give the average "man in the street" a clear idea as

(Turn to Page 113)



The Application and Maintenance of Water Emulsion

FLOOR WAXES

By RICHARDS JARDEN

President, Franklin Research Company

UCH confusion has been attendant upon the application and maintenance of water emulsion waxes. As a matter of fact, water emulsion wax is perhaps the simplest of all floor finishes to apply and maintain. The confusion has arisen because of the comparative newness of the product plus the differences between brands and floors as well as a great variety of opinions on use and maintenance. For the purposes of this discussion, it will make it much easier if we decide first of all on the requirements of a good water emulsion wax and then limit our observations to a wax that meets such requirements, rather than to try to cover the whole field.

These requirements were outlined in a previous issue of SOAP, namely the June issue, page 91, entitled "How to Select and Judge a Water Emulsion Floor Wax." Summing up, they are as follows: 1. Such a product must have a well balanced film for toughness and resistance to wear, that is balanced between a too soft film

that will catch dirt and a too hard film that will scratch off the surface. 2. Such a product must be well balanced in water resistance so that it will stand up under ordinary maintenance methods which include an occasional damp mopping.

By using as a basis for this review a wax that is well balanced in these paramount requirements, we find ourselves in a position to speak more broadly, and in doing so we dare to repeat those elementary points: A. First be sure that the surface is well cleaned. B. Apply in thin well spread out films.

It must be understood that the manufacturers of a water emulsion wax are by circumstances compelled to produce a product for general use rather than for use on any specific floor. They cannot foresee the condition of the many different floors on which their product will be applied, with the result that in reading the directions on a container and finding a recommendation for "two thin well-spread-out coats," the user must bear in mind

that this is a rather broad statement and that depending upon the extreme porosity or lack of porosity on the particular surface, he should vary his application. For example, on a new rubber floor where we have a perfect plate with practically no porosity, one full strength coat will probably give most satisfactory results. On an old rubber floor from which the plate has been worn to expose the more porous rubber under the actual wearing surface, three and in some cases four coats are necessary to secure the desired finish. Using this as an example, we can apply the same general principle to all the types of floors, whether they be linoleum, wood, composition, marble, terrazzo and so on.

Overlaps and Streaks

Do not confuse overlapping with streaks, as overlapping is the result of careless application or a failure to use the correct tool, while streaks are as a rule caused by an unfavorable chemical reaction against the microscopically thin wax film while in its wet condition.

The principal difficulty encountered in application is streaks, that is, high and low lights on the surface. These are caused by a thicker wax deposit at one spot than at another and again are certainly chargeable to the method of application rather than to the wax. In applying a correctly balanced wax emulsion, we are dealing with a rather delicate chemical composition and certain elements, particularly specific types of dirt and chemical residue from certain cleaning substances are definitely unfavorable to a wax emulsion and result in a swelling of the small wax particles. This swelling is never uniform over the whole surface.

Cause and Elimination of Streaks

It is this uneven swelling of the wax particles that causes streaks and therefore it is the fault of the user if he allows these unfavorable elements to be present to cause these streaks. In nine cases out of ten, the possibilities of this difficulty can be eliminated by a thorough rinsing of the floor with clear water after it has been cleaned. This rinsing will remove any unfavorable residue left from the cleaning elements or any dirt that has merely been loosened by the cleaner and not actually taken off the surface. Therefore, if we deal with the one case in ten that cannot be handled by a mere rinsing of the newly cleaned surface, we are, in fact, covering our subject in thorough detail.

Certain floors, particularly of the more porous surface type, are apt to gradually build up within their pores either an alkali or a fatty acid content as the result of lengthy maintenance with the usual cleaning elements. This alkali or fatty acid content becomes an actual part of the floor itself. It cannot be merely washed or rinsed off of the surface but must be either sealed in to prevent its acting unfavorably against water emulsion wax or it must be neutralized.

In the majority of cases the floor will have built up a fatty acid rather than an alkali content, because when one uses soap and water there is a tendency for the water to split the soap into its original elements of fatty acid and alkali. The possibility of the alkali being washed away with the water is greater than is the possibility of the fatty acid being washed away. Therefore, we are practically safe in saying that the floor which has undergone a lengthy period of maintenance with soap and water has built up a fatty acid content, whereas the floor that has been maintained with an alkali type cleaner such as tri-sodium phosphate or the different powders or crystals, will invariably have built up an alkali content.

Curing Basic Floor Troubles

Either of these objectionable built-in elements can be sealed into the floor with any good penetrating seal or for that matter an actual surface coating. (The writer would personally recommend the penetrating seal). It is less expensive and in many cases even more satisfactory to neutralize these unfavorable elements rather than to undertake to seal them into the surface. Neutralization is quite a simple operation, for example: an economical method of neutralizing alkali content would be to rinse the surface with some safe acid, such as vinegar, (acetic acid) diluted one part of vinegar to ten parts water.

If the objectionable substance is fatty acid rather than alkali, as will be so in most cases, the rinse should be on the alkali side. Probably the most harmless and safest to use would be ordinary housthold ammonia diluted about 1 part of ammonia to 10 parts of water. If one were using the 26 degree ammonia, 1 part of ammonia to 40 parts of water would be the ratio.

Applying Wax to Problem Floors

As a double precaution on these floors which have a tendency to streak, it is quite wise to dilute the wax itself when applying the first coat with equal parts of clear water, thus allowing a quicker spread and again reducing the possibility of swelling of the microscopic wax particles.

On those floors that have built up an objectionable alkali or fatty acid content, a rather porous condition is often present, with the result that such a surface will actually absorb a great quantity of the first one or two coats of wax that are applied. It is very strongly recommended that rather than undertake to pile three, four or five coats of wax on such a surface at one time that the procedure be as follows:

Arrange for a two-coat original application with the knowledge that this is not a finished job and allow that two coat application to be abused by traffic for several days with the further knowledge that abuse will tend to push the wax down into the porous surface and thus fill the floor.

After several days of traffic abuse, clean the floor sufficiently well to remove the surface dirt but not so thoroughly as to pull this wax deposit out of the pores. Use a highly diluted mild soap cleaner. Then apply the finishing one or two coats of wax. In other words, do not try to get 100 per cent results in appearance on such

a surface antil after its second treatment or until after the first one or two coats have had an opportunity to be walked into the surface to some extent.

Waxing Composition Floors

On approaching the magnesite composition type floor, we again find an unfavorable chemical reaction against the wax. This is due, in this case, to an effervescent salt deposit that is a necessary part of such a floor. What has been said above in regards to unfavorable deposits of alkali or fatty acid applies here, for the problem is similar. However, in this case there is less opportunity of neutralizing the objectionable effervescent salts and our recommendation rests decidedly with sealing in these substances with a penetrating seal before applying the wax.

On some such floors a very careful application of the wax itself, in diluted form, can be used as a sealer. Dilute 50-50 with water. Great care will have to be used to clean the applicator at frequent intervals during this application of diluted wax to the surface. At the first sign of a "sudsy" effect, the applicator or mop must be thoroughly rinsed out, as these suds are the first indication of unfavorable chemical reaction. The best method is to divide such a floor into small areas and wax each of these areas separately and quickly.

On non-resilient floors and particularly on marble, terrazzo and asphalt tile, it is wise to carry a thin rather than a heavy coating of wax, with the result that invariably the first application can be made in one rather than two coats. Subsequent applications can be made with diluted coats of the material, keeping in mind more the desire to seal the pores rather than to lay an actual film of any great thickness on the surface itself.

Maintenance of Wax Floors

A check up on prominent maintenance authorities regarding the actual methods used to maintain floors waxed with water emulsion type waxes reveals the following points: Floors are brushed by machine, depending upon traffic conditions and weather, as frequently as every day and as infrequently as once a week. For this brushing a stiff bristled brush is generally used. Many maintenance men supplement the brushing with a buffing on these floor areas which come under the public observance most frequently. This produces a high, rich, and deep gloss.

Where maintenance men are using a wax sufficiently high in water resistance to withstand damp mopping, the brushing and buffing is generally supplemented with a damp mopping using clear cold water. This damp mopping, particularly in hallways and areas that receive a fair amount of traffic, is done as often as every day and as infrequently as once a week. Damp mopping removes the adhered dirt that can not be brushed off the surface with a dry broom, brush or machine and leaves the floor in sparkling condition.

The practice of complete removal of the wax film by means of a thorough soap and water cleaning is handled differently in different parts of the country and in different buildings, again depending upon the amount and type of traffic. However, it is generally felt that the wax on every floor should be entirely removed at least twice a year. By so doing, this will prevent the gradual building up of a thick wax film particularly at those points that receive little or no traffic. The disadvantage of such a heavy wax film is that it will tend to darken the floor over a period of time.

One cardinal rule for economical maintenance is "Never let a floor get ahead of you." In other words, keep after your floors because it is cheaper to touch up traffic spots or dirty areas frequently than it is to spend the time and labor re-doing a floor entirely.

Heavy Traffic Areas

One should understand that it is the scuffing, scraping type of traffic that does the most damage. Mere walking over the surface has but little effect on a well-waxed floor. Great wear will take place in spots such as turns in corridors, doorway entrances and elevator floors, where the traffic is not only concentrated, but of a scuffing type.

At these points there will be an accumulation of grit and dirt, due to the actual scraping of shoes on the floor. Great economy will be accomplished if at intervals during the working day arrangements are made to sweep these gritty substances off the surface. For example, the procedure in maintaining an elevator should certainly include instructions to take that elevator up to the top floor or down to the basement immediately after the morning rush and again after the noon rush and sweep it free of grit. This takes but a few moments and will result in doubling the life of the wax as well as greatly enhancing the appearance of the elevator floor between waxing periods. This same procedure can be followed with variations at other vulnerable spots such as those in front of cashier's desk, at prominent turns in corridors and at the top and bottom of stairways.

One can also see that such a procedure will eliminate the possibility of that same grit and dirt being tracked further through the building. Try to eliminate this dirt and grit at its source rather than after it has done its damage.

Alex Sparra who formerly played second base for the baseball team of McCormick & Co., Baltimore, and was the outstanding infield star of the Baltimore Industrial League last season, recently made his debut with the Albany team of the International League. In his first day with Albany, he made six hits in eight times at bat in a double header, according to A. E. Badertscher, chief entomologist for McCormick and coach of the baseball team.

J. A. Tumbler Laboratories, polishes, Baltimore, whose plant at 423 South Hanover St. was badly damaged by fire several weeks ago, has moved into temporary quarters at 418 Hanover St. until definite plans are made as to rebuilding.

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The Termite Situation

Future Possibilities, and Prices for Termite Extermination* A Discussion of Conditions in the New York Area,

By GEORGE E. SANDERS

President, Sanders Exterminating Co.

HE termite has been known as the world's greatest wood destroyer, since entomology was first studied, outranking in this connection all other enemies of timber, including both the various fungi and bacteria usually grouped as rot, decay, etc., and the myriad of other insects belonging to the different groups that prey upon wood. The termite represents one of the most ancient forms of insect life, and is most correctly classified as the social roach. The only insects that we definitely know to be more ancient are the group to which the well known silver fish belongs, and the group to which the snow fleas and the daphnia, or fish foods belong. The termite vies in antiquity with the locust, the grasshopper, the book louse, the dobson fly, the caddice fly, and the dragon fly. They are claimed by some to have existed practically unchanged on earth for fifty million years. Others say five hundred million years. Both, needless to say, are estimates.

We do, however, know that the termite did exist in its present form well before the coal period, when the highest forms of vegetation were club mosses and such primitive plants, which then grew as large as our present forest trees, and which formed our coal beds, and are now represented by such plants as the low growing scouring rush or horse tail, and the lion's paw, the green trailing decorations, that we see at Christmas time. Our modern insects, such as the true flies, the moths and butterflies, the beetles and the hymenopterous insects, taking in the bees, wasps, true ants, gall makers, and hymenopterous parasites, have all developed since the coal period, most of them since or with the development of flowering plants. In fact, many of these insects are the reason for the development of flowers.

I mention these facts to give an idea of the extreme antiquity of termites and to show how impossible it is for us at this time to forecast the duration of the present termite outbreak. In all history, there is no record of any marked increase or decrease in termite population. Taking a strip six hundred miles wide across the north central part of the United States, the species of termites now present were known to exist in the same areas seventy-five years ago, and have probably been there since the dawn of history. But where a termite colony was a curiosity in all that area twenty-five years ago, we find now that a row of surveyor's stakes in the same area will be attacked in a few weeks, and we find termite damage in buildings erected with no thought of termites being

present. So we have on our hands the first known outbreak of a tremendously ancient insect which has no known enemies except a few species of common ants and they are not important as control factors.

In 1932, we treated the first house to be treated for termites in the New York area. In 1933, we treated upwards of a dozen houses. In 1934, termite calls again increased. This year, we find another increase, greater than in previous years, and we find the infestations on an average, heavier and stronger than ever before. The reason for this increase we cannot explain satisfactorily. or can we predict its duration. One theory is the greater prevalence of heated buildings, but this does not explain their increase in poles, fences, posts, and other places out-of-doors. If it is some solar effect such as sun spots, the duration of the outbreak may be for only a limited period. If it is caused by the drying out period that the world is now passing thru, the outbreak may last a few hundred years. If, as some of us think, the outbreak may be caused by man, with modern transportation carrying termite nests relatively long distances and allowing widely related races within the species to cross and so give rise to more vigorous and aggressive forms, then we have a termite problem on our hands that will last a long time. Considering the antiquity of the termite, the present outbreak, if this theory is correct, may outlast our present civilization. In any event, we have a termite problem on our hands, a termite problem different from anything in history and growing more serious all the time. How long it will last no one is in a position to even hazard a guess.

The termite present in this area is, so far as we know, only the eastern subterranean termite, *Reticulitermes flavipes*. Another species of subterranean termite exists in a small area in Massachusetts, and still another species of the subterranean form exists in a small area near Ithaca, N. Y. Still another species of the subterranean form, much larger than ours, exists as far north as Norfolk, Va. We have no dry wood termites and no damp wood termites in this area.

NOW regarding the New York termite—he makes a nest in the earth and must be in touch with moisture at all times. The queen, the eggs, and the young are always in the earth in close contact with moisture. Like all termites, it feeds solely upon wood, using two agencies to induce the wood to nourish it. The cellulose of the wood is converted by the protozoa in the termite's intestine into sugar and starch, and thus made available

^{*}Address before New York Society of Exterminators & Fumigators, New York, June, 1935.

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publicly the splendid support given us by the insecticide industry . . . and to thank those in particular, who by their patronage have placed us in the foremost rank . . . and have made us the recognized source for deodorized insecticide base . . . further proof that a quality product backed by honest intent, and fairly priced, is still recognized and rewarded.

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to the termite's body. So it gets its carbohydrates. For its proteins, it wittingly or unwittingly carries with it fungi which live on wood, causing what we call dry rot. The fruiting forms of these fungi furnish to the termite a food relatively high in protein and which satisfies them as far as nitrogenous foods are concerned. Termite queens in this area, may lay from several hundred to several thousand eggs per day. If the queen is killed or dies, auxiliary queens are developed among the workers, several of whom may function as effectively as the queen. The adults or flying forms mate for life and live together as king and queen, for a period estimated to be ten to fifteen years. With the possible exception of a few examples in the goose, cat and wolf tribe, termite kings and queens are our most perfect examples of domestic constancy. A termite colony must be established for four years or more before it sends off flights of males and females or kings or queens to pair off and establish new colonies. These are the flights of "flying ants" that are reported to us in the spring months. In this area, we have had flights of termites every month of the year, the most in April, and the fewest in December. We believe that one colony or nest sends off only one flight per year, but we are not certain on this point.

The worker termites are yellowish white and blind. They never voluntarily appear in the light. The workers gather all the food for the colony, feed the queen, rear the young and construct the nests, tunnels, etc. The soldiers of the colony are specialized workers with large heads and powerful jaws whose sole function is to defend the colony from invaders, which for the most part, are common ants. The termite is the most palatable of all insects, having a flavor very similar to Brazil nuts. It is the favorite food of several of our common ants, particularly Cremastogaster lineolata, the little black ant common out-of-doors. The very best of all ant baits is termite bodies crushed up with a poison like arsenic or thallium and used as a paste. The termites are affectionate and cleanly and spend hours licking and cleansing each others bodies, and as soon as one dies, being economical, the other termites immediately eat the dead.

NOW regarding treatments for termites—first the architects and builders, and persons in charge of the building codes, should revise the codes to make construction more termite proof. There are enough badly constructed buildings already up to furnish work for all exterminators, and there will always be enough bad construction even with the best supervision. We constantly run into houses, infested by termites, that at no additional cost but with a slight change in plan could have been built comparatively termite proof. It is not up to us to shout for the erection of termite proof buildings, but I must say that most of the new buildings going up are just as open to termite attack as the old ones. The model house that I noticed on Madison Avenue, south of 40th Street, is perfect as a termite home.

Regarding the chemicals that should be used and the methods followed. Termites in this regard are somewhat

similar to rats. Rats can be killed with virus, ratin, arsenic, cyanide, phosphorous, thallium, squill, silico-fluoride, or strychnine, and as far as I know, the rats are equally dead. Similarly, termites are equally dead when killed by any number of chemicals. Whether to treat the earth or the wood is another controversial question. If I have a leaky sewer pipe, I treat the sewer pipe, and I pay no attention to the roof. Ours is the subterranean termite, and hence I favor ground treatment for it.

The chemicals used for soil treatment are sold by all heavy chemical houses. Soil treatment demands more skill on the part of the operator than wood treatment, for we have to consider the points of solubility, penetration, effectiveness, lasting quality, danger to vegetation, persons, and animals, the danger to floors. The poison to use on one side of the house may be wholly unsuitable for the basement or trench. In treating wood only, you use in each case only one proprietary compound. I am not here to discuss the relative merits of soil and good treatment, only to say that only persons with a full knowledge of the chemicals used, and who know how to retard or speed up the chemicals being used, should go in for soil treatment. To my mind, it is suicidal for any person not familiar with chemicals and chemical reactions to attempt soil treatment for termites in a congested area like New York, and where vegetation is so valuable. The perfect chemical for termite treatment is not here yet, for to be the perfect one chemical for termite control, it must be soluble, penetrating, long lasting, volatile, non-odorous, toxic to termites and non-toxic to humans, animals, and vegetation in liquid, solid and gaseous form. There are too many contradictions here for us to expect the perfect termiticide soon.

To sum up, I may repeat that we have in this area a new and very serious termite problem. It may be that it is here to stay. Several firms, all using different methods, are handling them successfully with carrying costs in different types of construction. The price cutter is becoming less and less a factor in termite work as time goes on. We will take, for instance, a job where a half-dozen of the best exterminating operators would use from fifty to one hundred dollars worth of chemicals alone, and charge two hundred to three hundred dollars for the entire job. Bids as low as ten dollars to seventy-five dollars are not now being considered by owners, for termite work proves itself the following year.

It is true that we will occasionally find so-called "exterminators" using thallate ant traps, spraying the flights with fly spray, sometimes spraying basements monthly, all on a yearly contract basis, digging in the earth to find a bug and calling it the queen and charging for killing it, painting the wood near an emergence point with creosote, tar or fly spray, squirting ortho dichlorbenzene or fly spray into tunnels with a spring oil can, spot treating, fumigating with various gases, injecting gases into the soil, placing para crystals in the soil near buildings, identifying common ants as termites and treating and charging for termites where none are present, and per-

(Turn to Page 113)



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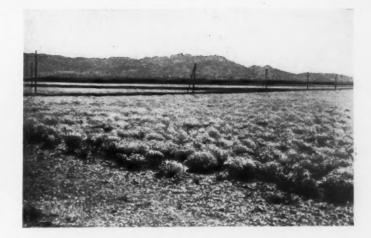
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In France, 2,500 acres of pyrethrum are now under cultivation and producing an average of 600 tons of flowers a year. In 1930, over 4,500 acres were under cultivation.

Pyrethrum Cultivation in France

By DR. JEAN RIPERT *

Gennevilliers, France

O MANY detailed publications on the subject of pyrethrum have appeared, that this rapid survey might well seem useless. And yet, this is not the case, particularly when considering French pyrethrum, the history of which is very little known. In the first place, after showing what marked influence the Japanese production holds on the pyrethrum world's market, after reviewing their cultivation methods and explaining why that country is in a position to make extremely low quotations, we will examine the cultivation and harvesting methods as carried out in France. These have given relatively low prices without doing wrong to the producers. We will also make it clear that the applications of pyrethrum are of a most useful interest which makes it indispensable in avoiding hundreds of acres of land again becoming uncultivated.

In 1930, the total production of pyrethrum in the world amounted to 9,400 tons of flowers, out of which 7,500 tons were grown in Japan. In the presence of such a figure, what is represented by the Dalmatian production of 1,300 tons or ours of 600 tons? Very little indeed. It was, in such conditions, very easy to speculate especially if one considers that up till 1920, prices increased very rapidly, then remained stale for about five years and, in 1926-1927, fell abruptly. Two years later, when the United States demand was reduced from 7,000 tons to 2,000 tons, the price of 14 frs. per kg. was brought down to 6.50 per kg. to which it has held since.

Let us say in a few words that the Japanese cultivator,

owing to the extremely low wages paid, lives in such conditions of poverty that, were it not for governmental pressure, he would since long have abandoned this culture. In Japan pyrethrum is grown and harvested in the following manner: Sowing is in the Spring or Fall. The young plants are transplanted twice on ridges to avoid any excess of moisture and it is only on the second year that they are planted definitely. They lie close to one another, an average of 10 inches existing between each bunch, thus allowing a great density per acre. Frequent weeding goes on to keep the ground clean and aerated.

One year after the definite plantation has been effected, harvesting may be operated although full output is obtained only on the second year. The first flowers are picked by hand, the bunches cut off the stems only when blossoming is complete. The flowers are dried by being placed on movable hurdles. One can well realize that the hand labor used for this kind of work can only be of the family type, and that even a salary of 4 frs. a day for a man and 2.50 frs. for a woman does not permit flowers delivered in Europe at 6.50 frs. per. kg. It is reckoned on a cost price of 5 frs. per kg. to which intermediate charges, commission, pressing, freight, etc., are to be added. In France production by similar processes,—and it was tried in 1923,—would give a cost price of 14 frs. per kg.

Since about 2,500 planted acres, producing 600 tons of flowers, are now under cultivation in France, it may be useful to know how this plantation area was arrived at and what purposes it is intended to serve. In 1919 there was an active demand for pyrethrum and to such

^{*} Extracted especially for Soap by Dr. Ripert from a recent publication by him on this subject.





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JOHN POWELL & CO., Inc. 114 E. 32nd Street New York, N. Y. an extent that home production at that time was not large enough to meet it. It was therefore logical that the producer should be urged to grow a plant which he would himself use for protecting his vineyards against cochylis and eudemis. Thus began the culture of pyrethrum in France. When later, in 1923-1924, new uses were found for pyrethrum such as household insecticides, demands increased considerably and cultivated areas were, of course, increased. During this period until 1930, French producers easily sold their crops at remunerative prices. In 1930, the depression struck France, sales dropped, and the fall in the price of Japanese pyrethrum made it almost impossible for French crops to be disposed of. For that reason cultivated areas in 1934 were only 3,000 acres against 4,500 acres previously.

The kind of ground in which pyrethrum will grow, is a very poor soil. Through proper treatment it is possible to obtain from such soil quantities up to 760 kgs. of "flower-stems" per acre, i.e., flowers with stem parts attached with an average around 560 kgs. per acre. Such "flower-stems" are laid on the ground for drying, then taken in and put up in stacks like hay. The grounds of Southern France or of Champagne fit perfectly well to pyrethrum culture (Chrysanthemum Cineraraefolium) and such soils, which remained for 40 years uncultivated, are now covered with pyrethrum. And such was the interest taken in pyrethrum by cultivators that demand for seeds and plants was great. Unfortunately, there was only a small outlet for the crop. Owing to the absence of buyers, French manufacturers sought to render the "flower-stem" usable. We would like to show what results were obtained in recent years in this direction.

The manufactured pyrethrum products are divided in three categories: Household insecticides (Fly-tox, Flit, Cobra); agricultural insecticides (Agri-Tox, Salvagrol, pyrethrum-soap); medical veterinary parasiticides (chrysemin, vermosol, vermifuge).

Household Insecticides. This is the most important since it amounts to 70 per cent of the total production. Their manufacture requires the extraction of the active principles, i.e., the pyrethrins contained in the flowers by means of various solvents. Such extracts should be manufactured at very low price: not that the price of extraction itself is high but the recovery of solvents, owing to the quantity to be used, is important. Less solvent is necessitated to treat one kg. containing 10 toxic units than 5 kgs. with 2 toxic units per kg. Here we come again to the problem of "flower-stems" since almost the whole toxicity lies in the flower which represents only 28 per cent of the weight of the "flowerstem." It is, therefore necessary when starting from "flower-stems" to grind about four times more raw material in weight than with Japanese flowers.

Agricultural Products. Pyrethrum, thanks to its harmlessness to man and warm blooded animals, would be ideal for gardens, flowers, vineyards, etc., if its price would make it possible to compete with products employed in large quantities such as nicotine and arsenic, to which latter substance it has been shown that it could be substituted, combined with other plant extracts nontoxic to man. When the French legislator, cognizant of the damage due to arsenic, will forbid its use, then an era of prosperity will open for French pyrethrum. This already is anticipated in the United States where treatments by means of arsenic derivatives are restricted to a certain extent.

Pharmaceutical Products. There is not a very large outlet for products of this kind which absorb only a few tons of pyrethrum per year at present.

If us now examine successively the results obtained in the industrial culture of pyrethrum through the:

(a) action of manure, (b) selection, (c) use of second flowering, and, then detail the final improvements arrived at through: (d) proper drying, (e) thrashing of "flower-stems," (f) pressing of the product thus obtained. Most of these studies and improvements were conducted and successfully performed, not by adaptation, which is usually done elsewhere, but by following channels not followed before. Furthermore, such researches were only possible after adjustment of a method of analysis of products containing the active principles. This method was published in "Les Annales des Falsifications et des Fraudes," No. 312, December, 1934. (Also SOAP, p. 103, April, 1935.)

(a) Influence of Manure. While adjusting pyrethrum for its cultivation and harvesting, French manufacturers also directed their efforts towards studying the influence of manure. A private experimental station was set up in the South of France and we are glad to publish the first results of this long work which enabled us to select varieties showing some very distinct features such as time of maturity, length of stems, number and weight of flowers by bunch, etc. (See Table I of original giving the output of "flower-stems" pro hectare, i.e., $2\frac{1}{2}$ acres.)

It appears from these results that: (1) The use of manure is necessary, whether the period is favorable or not as, in both cases, it either increases or maintains the production to the same level. (2) It is indispensable to apply a perfect manure since only the presence of the three base elements (nitrogen, phosphoric acid, potash) can give a regular result. (3) In wet period manure with rapid action (ammonium sulfate, superphosphate), in dry period manure with long action (cyanamid, slags) are the best ones. (4) However, nitrogenous manure with rapid action (nitrates) is good neither in dry nor in wet years. These few very simple rules may enable one to set up a manuring program applying to all cases. Finally it does not seem that the output of pyrethrins be clearly influenced by any of these manures.

Selection. Our selection trials were aimed at separating premature varieties from late varieties inasmuch as it would be most interesting, in any agricultural concern of some importance, to come, through placing flowerings



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at intervals, to a lengthening of the harvesting period. A great saving of hand labor would result from this as well as a decrease in the risks involved in case of rain, the quantity of pyrethrum cut and drying being smaller. After six years' efforts we have succeeded in isolating 23 varieties perfectly pure, the characteristics of which are shown in a table. (See Table II of original.)

The conclusions are that: (1) Premature development is of an hereditary nature. Premature and late varieties can therefore be obtained. (2) Another very important hereditary feature is afforded by the stems' length. In a wet year, stems are long; in a dry year, they are short. Nevertheless, they have always to each other a constant relation which is characteristic of each kind and this is of importance for the flower production. Since the weight of flowers varies little, the shorter the stems the greater the output.

(3) Premature varieties have short stems, late varieties have long stems. In consequence of what has been stated above, small concerns where harvesting at intervals can be dispensed with, should preferably select late varieties.

Second Flowering. In Southern France the first crop being gathered in early in June, there frequently occurs, at the beginning of October, another less abundant flowering which hardly covers expenses. We have determined the pyrethrin content of such flowers and found that pyrethrin variations in these is approximately the same as in June flowers. Furthermore, this late flowering develops an unfavorable influence on the forthcoming year's crop and should not be encouraged.

Drying Process. Our research work was aimed at determining what effect such process could have on the pyrethrin content of the plant. By stabilizing flowers at various drying stages we could analyze the plant in the laboratory in the state in which it had been cropped.

Transformation of "Flower-stems" in Thrashed Flowers. After several experiments we mounted a thrashing machine which, by introducing directly into it dried "flower-stems" gives a product containing the greatest part of the flower, i.e., fruits, petals, bracteas central flowers. Only receptacles are eliminated. The product so obtained which we call "thrashed flowers" represents about 30 per cent of the total number of thrashed "flower-stems"; its pyrethrin content amounts to 7 to 8 grs. per kg. according to the year and the quality of the material. From a practical standpoint this product has the same value as a pure flower and gives full satisfaction.

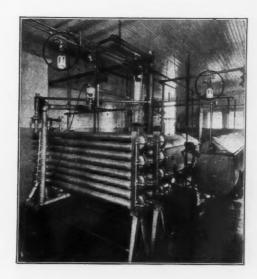
Pressing. As mentioned by several authors, pyrethrum flowers would lose rapidly some of their toxicity owing to oxidation occurring, through air, in storing. Through baling their material the Japanese succeeded in obtaining a perfectly stable product with no such enormous differences in toxicity as so often noticed in other lots. Having found that thrashed flowers, compactly pressed, could be preserved indefinitely, we established in the South of France a powerful hydraulic press making standard bales weighing 130 kgs. and measuring 50 x

50 x 60. Such bales possess a density greater than that of wood, which is a proof that there is no air going through. Thus, through thrashing and pressing a first-quality product is obtained liable to replace, in all its applications, pyrethrum flowers, and the cost of which would easily compete with the Japanese, should the latter product and export in normal conditions.

We conclude in wishing that this culture may be effectively protected by the French Government. It is not very extended but we must not forget that it affords a sedentary laborious population substantial means of living.

NEW INSECTICIDE EQUIPMENT

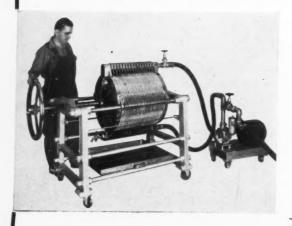
A new type of insecticide diffusing equipment is being manufactured and marketed by the Fumeral Company, Racine, Wis. The new equipment consists of permanent-



ly installed pressure spraying units attached to ordinary air or steam lines. The fittings each carry four adjustable nozzles and a glass jar containing the insecticide liquid to be diffused and are spaced in the dairy, factory, warehouse, etc. one for every ten-thousand cubic feet. Upon application of the air or steam pressure, the insecticide liquid is forced out twenty feet in four directions from each unit in the form of a dense, fine mist. All the units attached to the steam or air line may be operated and controlled at once, or they may be operated singly or in any combination by use of individual valves. The new units in addition to being recommended for the industrial application of insecticides, are also suggested by the maker for application of theatre sprays and other deodorants, and for disinfecting. They state that systems are already in use in packing plants, paper mills, cheese factories, dairies, canneries, warehouses, large steamships, cattle farms, hotels, schools, hospitals, theatres, and greenhouses. They can be used with any liquid insecticide, deodorant, or disinfectant.

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New Methods in Janitor Service

A Few Practical Hints on Training Men in Building Maintenance for the Janitor Supply House to Pass Along

By JAMES M. OBERTI

By Block Service, Inc.

HIRTY years' experience in building maintenance have taught me that in handling janitors, it is essential to give them a definite system to follow in their work in order to get the best results. In most instances, complaints about janitorial service can be reduced to a negligible number by systematic investigation and by correcting the methods and materials used by the janitors in doing their cleaning. At one time I had a crew of about 400 janitors under my supervision and a record was kept of every complaint each janitor had. When a janitor's card showed too many complaints in a certain length of time a thorough investigation was made. When the cause was discovered, a remedy was effected. With my mind set on preventing repetition of complaints on dusty furniture, one day I started to make a personal study about the reason for these complaints and inspected each room immediately after the janitor had finished his daily cleaning. I could find no dust, and every room appeared to be properly cleaned. The dusting was done between 6 A.M. and 7:30 A.M. I again inspected those rooms one hour after and found a thin layer of dust on the furniture in every room, which was hard to see in the rooms situated on the shady side of the building, but was plainly visible in the rooms on the sunny side.

From this observation I learned that the janitors were using feather dusters on many pieces of furniture on which the dusting cloth could have been used. I asked several janitors why they did not dust that furniture with the cloth. Their answer was, "It takes too long in dusting with the cloth." I watched them dusting with the cloth and with the feather duster and found the janitors were right. It took much longer with the cloth.

Up to this point, I found that the main trouble was caused by too much dusting with feather dusters which should have been done with a cloth, but then again, there was the question of more time, and that meant additional expense. After further investigation I figured that over four-fifths of the surface requiring daily dusting could be done with a cloth which would remove the dust, instead of scattering it into the air. So I devised a simple but very effective method. I gave two flat sticks 11/4 inch wide by 1/4 inch thick, 16 inches long, and 11/2 yards of dusting cloth to each janitor. The cloth was dampened with disinfectant and rolled on one stick and a couple of turns on the other, then united together and held with one hand at one end and used to dust all the furniture except baseboard moldings and other very small surfaces.

This method, after a few days' practice, enabled the janitor to dust just as fast as he did with the feather duster and did better work than when using the cloth without the sticks. First: Because by using the cloth rolled on two sticks when the surface of the cloth became impregnated with dust the janitor rolled out a clean section of the cloth, and rolled up the soiled on the other stick, this prevented the scattering of any dust collected by the cloth as it very easily happens when the cloth is used loose by hand. Second: The 16-inch sticks cover over twice as much space as a person can cover by holding the dusting cloth in his hand. This cloth rolled on stick dusting method reduced the dust complaints 90 per cent, and I wondered why we did not think of it before.

After this experience I began to study other janitor tools and methods. I thought if the cloth-on-stick idea effected such an improvement in dusting furniture, why not apply that method for sweeping linoleum, marble, hardwood floors and all such floors that have a smooth surface? So I set out to investigate how much of the dust found on furniture every night came in through the windows and doors, and how much is sent there by stirring it off the floor by sweeping with the common floor brush or dust mop. For several nights I inspected a number of rooms as soon as the tenant left his office and before the janitor had done the sweeping. I noticed the amount of dust on the furniture. Then I inspected these same rooms a couple of hours after the janitor had swept them and I noticed that the amount of dust on the furniture was considerable more than there was before the sweeping was done. I thought the method of sweeping was wrong because it created more work for the janitor in dusting and was also decidedly unsanitary.

I started to apply the "cloth-on-stick" method in sweeping, by taking a couple of yards of cheese cloth, dampened with a disinfectant solution and put it over the hair floor brush so that the cloth would contact the floor instead of the bristles. When the portion of cloth contacting the floor was well impregnated with dust it was rolled on one of the sticks and a clean section was moved in its place. A simple spring hook held the roller on the brush.

I watched the janitor very carefully and directed him to change the soiled section of the cloth once for every room of medium size, and to change it in that proportion for larger rooms or oftener for rooms with unusually dusty floors. This was necessary because if he swept with the cloth too heavily loaded with dust, the dust would be released from the cloth again. It took patience

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in training properly several janitors to sweep with the damp cloth method. After the training was satisfactorily accomplished I inspected the rooms swept and dusted with the cloth-on-roll method daily for several weeks, and I found those rooms with so little dust that if the janitor had left some desks without dusting for one day tenants would not have noticed it.

NOW the damp cloth-on-rolls sweeping method proved beyond any doubt, to effect the best cleaning job. There was however too much waste of time in unhooking and putting the rolls back on the brush. After a year of experimenting I devised a new roll holder. Instead of hooking the rolls on the regular bristle floor brush, I devised a metal frame with inclined edges and rubber cushion. The top of the frame is provided with automatic clamps to hold the roller. This arrangement made the operation of rolling up the soiled section and rolling out the clean section of the cloth very easy and fast. The new tool was also provided with a handle having a universal connection which turns the sweeper at any angle making it easier to sweep in narrow spaces such as between and under furniture.

When I finally had perfected the new tool I gave a half dozen to one foreman and instructed him to take these tools in the janitors' room and give one to each of the first six janitors willing to try them. Out of 12 janitors only 3 offered to try them. Four days later the foreman reported that the men did not like to use the new sweeper and that out of the three who tried it, only one was using it.

The foreman was told to do nothing about it and let this one man use it for a few days and watch his work. Ten days later the foreman reported back that this janitor said, "I like this new sweeper much better than the brush because I find less dust on the furniture and at the end of my day's work my mouth and throat are free from dust." The foreman watched closely the condition of the floor, and dust on woodwork and on furniture and he reported back that the work this janitor did with the new sweeper was much better than when he was doing it with the ordinary brushes.

The foreman was instructed to give the new sweeper to another janitor and tell this man to use it one hour a day for three days then increase the time each day as he saw fit. Ten days later the foreman reported improvement in the work of this janitor the same as the first man. At this point I told the foreman to ask any other janitor if they wanted to use the new sweeper, calling their attention that these two men found it very favorable. But notwithstanding the favorable report, none of the other janitors was willing to use the new sweeper. Then I gave this order to the foreman:

"Tell all your janitors you are giving them one week's time to work with the new tool, one hour per day and if they need your assistance during this time you will assist them, and instruct them in the proper way to use it, but at the end of six days anyone found that has not fairly well learned how to handle this tool, will be replaced by some one else."

The foreman carried out the order and after one week 11 of the 12 janitors used the sweeper and were convinced that the new method was better than the old one. The twelfth janitor, however, who was considered the best in the crew and had been employed in the same building for over 15 years was not given the stern order by the foreman so he was not using the new sweeper.

This particular janitor was still carrying on his old method. One night I went to the building where he was working and asked him if it was possible for him to use the new sweeper. The answer was that he thought that this tool might be good in some places but not in his department where there was so much paper on the floor especially behind and under the counters, that it was not possible to sweep properly with it. I took two sections of even space and told this janitor I wanted to make a little experiment, and for him to sweep one section and I would sweep the other to see who finished first.

When I finished, Bob was about four-fifths done. Surprised and rather excited, he came over immediately to see whether I had swept under the counter. To his surprise everything was properly swept. This janitor was asked to rub his hand on the floor and to look at the tip of his fingers and see if there was any dust. He did so and there was no dust on his fingers. Then he was told to rub his hand on the floor that he had swept, which he did, but to his surprise there was a ring of dust around the tips of all his fingers. At this point I told this janitor to try the new sweeper further and left him.

The foreman was instructed, however, not to bother this janitor for at least one week. On the fourth night after the men had been working for a couple of hours the foreman discovered that the old floor brush was still in this janitor's locker. Thinking that he had not shown up to work he went to that particular department and found the man there working with the new sweeper. The foreman said to this janitor, "I saw your brush down in your locker and I thought you had not come to work". The janitor very much embarrassed said, "I wonder what the boss thinks of me that it took me so long to understand the advantage of this new sweeper. I am saving an hour a day already." After using the new sweeper for three months instead of using 12 men the work was done by 11 men. The cleaning was better and the work was made easier for the janitors.

With the old method the janitor did the sweeping early at night then went home and came back to do the dusting in the morning in order to give plenty of time for the dust raised in sweeping to settle. I thought that as long as we could sweep and dust without stirring any dust why should we have the janitor come down twice a day? Why not sweep and dust at the same time? So I advised the head janitor that any janitor who used

(Turn to Page 113)



INSECTICIDES DISINFECTANTS CLEANING AGENTS

HOUSEHOLD FLY SPRAYS, MOTH SPRAYS, PERFUMED INSECTICIDE, LIQUID INSECTICIDE, SPECIAL PHENOL INSECTICIDE, X Y Z INSECTICIDE, POULTRY LICE OIL, DARK AND LIGHT COLORED, CATTLE SPRAYS, PINE CATTLE SPRAY.

COAL TAR DISINFECTANTS, PINE OIL DISINFECTANTS, PINE ODOR DEODORANTS, TECHNICAL CRESOL COMPOUND, IMPERIAL FORMALDEHYDE SPRAY, CHLORINE FORMALDEHYDE SPRAYS.

PINOLAVE—MAGIC CLEANER, PINE SCRUB SOAP, METAL POLISH, LIQUID TOILET BOWL CLEANER, GARAGE FLOOR CLEANER, FLUSH KLEEN, DRAIN PIPE OPENER, LIQUID SOAPS.

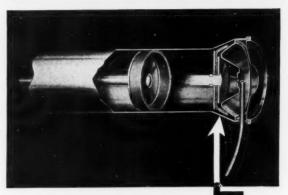
REQUEST FURTHER INFORMATION

The CHEMICAL SUPPLY CO.

2450 Canal Road Cleveland, Ohio

"Your Most Logical and Economical Source of Supply"

now!



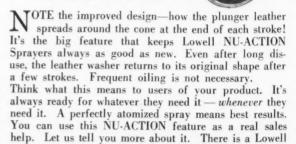
YOU ARE SURE
OF PROPER APPLICATION
with LOWELL'S

NU-ACTION SPRAYERS

THE SELF-FLEXING
PLUNGER LEATHER
IS ALWAYS READY WITH
POSITIVE ACTION



THE LEATHER IS
ALWAYS KEPT
FLEXIBLE . . .
FREE FROM SHRINKAGE



LOWELL MANUFACTURING CO.

North Pier Terminal

CHICAGO, ILLINOIS

CHICAGO, ILLINOIS

LOWELL
SPRAYERS

TUMBLER WINS POLISH PATENT CASE

A suit for infringement of patent rights was brought recently by the J. A. Tumbler Laboratories against the Baltimore Paint and Color Works, Inc., involving U. S. Patent No. 1,969,387, for automobile polish, issued to Joseph A. Tumbler on August 7, 1934, and subsequently assigned to the J. A. Tumbler Laboratories. The decision handed down on June 12 sustained the Tumbler patent and declared the Baltimore Paint and Color Works infringers.

The essential feature of the patented formula is a combination of pale blown castor oil, i.e., castor oil blown at a low temperature, with mineral oil and other less important substances. An important characteristic of the combination is the immiscibility of the castor oil with the mineral oil. These two substances are suspended in an emulsified form in water by means of a dispersing agent, so that the final product is a creamy emulsion. Other ingredients besides the mineral oil and prepared castor oil are ammonia, orthodichlorbenzol, petroleum spirit and water. The product is said to give a much better lustre than one compounded with a base of sulfonated vegetable oil.

The polish sold by the Baltimore Paint & Color Works was found to contain pale blown castor oil, mineral oil, petroleum spirits, orthodichlorbenzol, free oleic acid, combined oleic acid, caustic soda and water, in such proportions that the judge ruled that this was substantially the Tumbler formula. The Baltimore Paint & Color Works, defendant, claimed that the constituents of the two polishes were not identical, particularly since they contended that they had not used orthodichlorbenzol, ammonia and petroleum spirits in their product subsequent to the date when they were served with notice of infringement. In lieu of these ingredients they stated that they used tuluol, soap chips and kerosene. The court ruled that these were substantial equivalents for minor ingredients of the patented composition. Further defense was that the Tumbler composition was a mere aggregation of old and well-known ingredients and was anticipated by prior art. This plea failed as the judge ruled that Tumbler was the first to use this combination of mineral oil with blown castor oil dispersed in water. The case was ordered referred to a master for determination of damages and the issuance of an injunction was ordered restraining the defendant from making a polishing composition embodying the Tumbler invention.

Joseph H. Gerathy, member of the sales staff of S. B. Penick & Co., New York, died suddenly of a heart attack, July 20, at the Bridgeport Hospital, Bridgeport, Conn. Mr. Gerathy had been associated with the sale of botanical drugs for many years. He was at one time manager of sales for McKesson & Robbins, Inc., and was also connected at various times with John C. Wiarda & Co., Chas. L. Huisking & Co., American Druggists' Syndicate and J. L. Hopkins & Co. His home was in South Port, Conn.

LIMIT INSECTICIDE SAFETY CLAIMS

Insecticides for sale in California should carry no label statements such as "non-poisonous", "safe", "harmless to humans or animals", etc., according to notice recently issued by the division of chemistry of the California State Department of Agriculture. It is the belief of the department that statements of this kind about insecticides containing pyrethrum, nicotine, rotenone, etc., go a little too far in minimizing their danger, and that such statements are apt to make users unduly careless in handling these materials. It is reported that rotenone insecticide manufacturers of California have voluntarily agreed to omit from all labels any reference to the toxicity of their products except as related to the insect pest to be controlled.

Another request of the division is that pyrethrum insecticide manufacturers give guarantees of the active ingredients in their products on their labels in the following manner:

Active ingredients, Pyrethrins...... %
Total inert ingredients...... %

In printing new labels it is suggested that manufacturers submit copies for inspection before printing in order to save possible expense of making changes.

Experiments in the harvesting of pyrethrum recently completed by the U. S. Department of Agriculture indicate that the cotton stripper can be altered to harvest this crop satisfactorily. With plants upright, the stripper gathered approximately 95 per cent of the flower heads, and only 5 to 8 per cent of the gathered material consisted of stems. When used on plants badly or unevenly lodged, the average was not so good, and further modifications of the machine were considered necessary. These will be made and further tests will be conducted next season. In the Japanese and Dalmatian pyrethrum fields, the flowers are ordinarily harvested by hand or with devices that require much manual labor.

Derris is coming into wide use as an arsenical substitute on vegetables. In 1934 about 50 tons of ground derris dust mixture were used on various vegetable crops, largely in connection with the control of the Mexican bean beetle. Of several derris mixtures studied, one containing 16 parts of ground derris with a content of 5 per cent of rotenone and 18 per cent of total extractives, 25 parts of finely ground dusting sulfur and 59 parts of finely ground clay, seemed to be the most effective against the Mexican bean beetle. Thomas J. Headlee. J. Econ. Entomology 28, 605-7 (1935).

Net earnings of Monsanto Chemical Co., St. Louis, for the second quarter of 1935 were \$923,125 or 94.8 cents a share on the 974,133 shares outstanding. Net earnings for the same quarter last year were \$704,918 or $81\frac{1}{2}$ cents a share on the 864,000 shares then outstanding.

Permanent Mothproofing Co., San Francisco, has moved from 3421 to 3407 Geary St.

AGAIN Breuer Leads the Way In Quality Electric Sprayers With the New TORNADO MODEL 36

Automatic Time Switch-Volume Air Control

One Gallon Capacity, 1-3 H.P. G. E. C.E. MOTOR Universal Motor

Here is the finest sprayer ADJUST ever built. Similar to the NOZI NOW widely used Tornado SPRAYS Model 54 and retaining the automatic time switch, vol-ume air control and adjustable nozzle features, the new Model 36 will spray a big volume of insecticide great distances in finest gas for-

The patented principle of heating and compressing material does the trick. Just container the sprayer you need for covering large distances and penetrating with the finest gas every possible source of insect existence.

Get the facts on this sprayer before buying!

Also most complete line of electric sprayers to meet every spraying prob.em. MODEL 54-



MODEL 54—
1 QT. CAPACITY
It features an automatic time switch set at any point from 1 to 45 minutes—
sprays desired amount without any attention whatever— automatically shuts off. Can a'so be used for hand spraying. Adjustable also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray. MODEL 53 same as Model 54 except does not have automatic time switch or adjustable nozyle.

Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8' to 10'. 1/8 H.P. G.E. Universal Motor, 1 pint glass jar. 20' of rub ber covered cable.

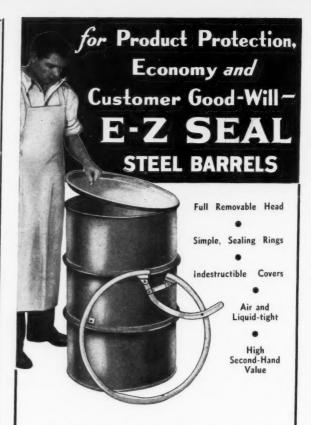


Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18' to 20', 1/3 H.P. G.E. Universal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, ware-houses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

BREUER ELECTRIC MFG. CO. Chicago, Ill. 862 Blackhawk Street

We do not sell insecticides. Our business is manufacturing sprayers.

Patented in U.S.A. and Foreign Countries



Many famous brands of liquid, semi-solid, crystal, and powder products are now regularly shipped in E-Z SEAL Barrels to insure product safety, customer preference, and economies in packing and shipping. Simple, easy-to-operate sealing rings securely fasten the cover in place, making a positive, leak-proof closure.

> Get the added prestige for YOUR Product that E-Z SEAL Barrels give!

GET ALL THE FACTS ON THESE PRACTICAL MODERN BARRELS — NO OBLIGATION TO YOU

We manufacture a complete line of modern steel Barrels, Drums, and Pails 1 to 65 gallon sizes

WILSON & BENNETT MFG. CO.

GENERAL OFFICES AND FACTORY-6528 S. Menard Ave.,

Chicago. Phone-Republic 0200

EASTERN OFFICE & FACTORY SOUTHERN OFFICE & FACTORY 353 Danforth Ave. Jersey City, N. J. Phones—Delaware 3-4700 Cortland 7-0231

Cortez and Bienville Sts. New Orleans, La. Phone—Galvez 2171

Three Modern Factories Sales Offices and Warehouses in Principal Cities

FAVORS RESTRICTING MATERIAL SALES

Restricting the sale of raw materials by suppliers to recognized business establishments and eliminating small quantity sales to consumer groups, is favored in a communication received from the Tunis Chemical Products Co., Kennett Square, Penna. Their letter states in part:

"With regard to your editorial in a recent issue of SOAP concerning the new book "Counterfeits" by Kallet and Schlink and your mentioning their recommendation to the consumer to manufacture their own fly spray, etc. we are taking the liberty of writing you our views on this matter. First, we feel that the tendency on the part of the consumer to make their own household necessities is diminishing each year, due not only to specialization today, but also because of the power of advertising in creating confidence in the minds of consumers on various products. We furthermore feel that this confidence is to a great extent justified because the keen competition of modern business is demanding scientific investigation and a thorough practical knowledge of the efficiency of products placed on the market for public consumption. We realize, of course, the existence of many misbranded and adulterated goods, but the cooperation of honest manufacturers and Federal agents will help materially in eliminating these products.

"Second, we are in favor of the reluctance of raw materials manufacturers to sell goods in small quantities to any but recognized business establishments. If a consumer, for instance, wanted to make his own pyrethrum spray he should not be able to buy less than 5 gallons extract. If we assume this to be a 20-1 extract of pyrethrum flowers at \$6.50 per gallon it would mean a big investment for him and he would have more spray than he could possibly use. In this connection we feel that the benefit and growth of the entire industry depends on the cooperation between the raw materials manufacturer and the manufacturers of finished products.

"Thirdly, as you suggest, the layman, unlike the manufacturer, is not familiar with the characteristics and uses of various chemical properties. This may lead to disastrous results when he attempts to 'make his own'. We are firmly convinced that for the benefit of everyone the consumer should purchase all his household necessities. If he buys from reliable firms his time is better spent improving himself to the needs of his individual business and personal happiness."

One of our readers is interested in obtaining the name of the manufacturer of a product called "Chlorasol" or "Chlorosol." Any information available will be greatly appreciated by the editors of SOAP.

The advertising campaign of Black Flag Company this season includes use of space in 230 daily newspapers. Fletcher & Ellis, Inc., is the agency in charge.

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Zonite Products Corp., New York, reports a net loss, after all expenses, of \$308,524 for the quarter ended June 30, 1935.

FORM NEW EXTERMINATORS GROUP

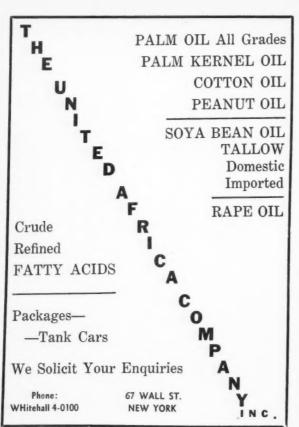
A new trade association in the exterminating and fumigating trade has recently been formed under the title of the Professional Exterminators Association. The membership includes 72 firms in the New York metropolitan district. Formation of the organization has been under consideration for some time as a result of the desire of one group in the New York Society of Exterminators and Fumigators to work out with the labor union of the local trade a collective agreement which other association members opposed. It was the position of these other members that labor relations should be worked out by each firm individually.

Matters came to a head last month when a city-wide strike was threatened and workers in a number of plants went out on what amounted to a twenty-four hour strike. The group which was interested in signing up with the union as a body, at once completed plans for organization of the Professional Exterminators Association, whose first function was to sign an agreement with Building Service Employees Local No. 155 binding each member of the new association to the union contract. The base pay for an exterminator was set at \$25 for a fortyhour week, with the provision that when men are engaged on fumigating work they are to be paid 50% additional for this period. By arrangement with the union a single \$5,000 bond was posted by the association to guarantee performance of the labor contract, making it unnecessary for individual members of the organization to put up the \$1,000 bonds asked by the union. We are advised that subsequently a number of other local concerns signed with the union individually, preferring to make their union contracts on this basis.

William J. Shrimplin, Rose Rat Exterminating Co., is president of the new organization, besides holding his position as president of the New York Society of Exterminators & Fumigators. N. K. Concannon is executive secretary and other officers are: Dr. Max Reiman, Oriental Exterminating Co., vice-president; C. H. W. Hasselriis, Ratin Laboratory, treasurer; and Milford Oachs, Exterminating Materials Co., secretary. Offices have been established at 535 Fifth Ave., New York, and the new telephone number is Va 3-6775. Membership in the new organization includes 72 firms in New York, New Jersey and Southern Connecticut.

The New York Society will continue to operate, we are advised by Irving R. Josephson, secretary. Dues have been reduced to \$12 per year as expenses will be substantially less under its new set-up. Former offices have been given up and the society may be addressed care of the secretary at 484 East 163rd St., New York.

A meeting of the newly organized Professional Exterminators Association will be held at the Building Service Club on Park Avenue, New York City, August 28 or 29. Complete arrangements have not been made as yet, but will be announced shortly by N. K. Concannon, secretary of the new group, whose headquarters are located at 535 Fifth Avenue, New York.







DISINFECTANTS

COAL TAR DISINFECTANTS—Coefficients 2 to 20 plus F.D.A. Method

PINE OIL DISINFECTANTS

CRESOL AND CRESYLIC ACID DISIN-FECTANTS

PINE OIL DEODORANTS

CRYSTAL AND BLOCK DEODORANTS

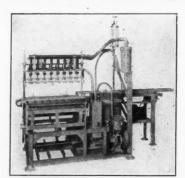
LIQUID INSECTICIDES

THE WHITE TAR COMPANY OF NEW JERSEY, INC.

PHONE KEARNY 2-3600 BELLEVILLE PIKE, KEARNY, N. J.



U. S. STRAIGHT LINE VACUUM FILLER with Vacuum Bottle Cleaning Unit



Produces cleaned bottles at instant of filling—Economizes on space, saves installation costs—Increases production capacity—One operator handles cleaning and filling operations under dual head. Has micromatic adjustment wheel for regulating speed to synchronize with other machines in line. Made in either fully automatic or semi-automatic types. Furnished in 6-8-10-12 and 14 tubes as desired.

Everything in Bottling Machinery U. S. BOTTLERS MACHINERY CO.

4012 No. Rockwell St.

Chicago, Ill.

Offices in all principal cities

NEW PRODUCTS

(From Page 28)

Get each one to state just why she made her choice if she can find words to express and convey her reason.

With the notes assembled from the expressions of twenty-five or more women one can find out just which packages have made the most favorable impression. There will be a leaning toward certain sizes, colors, shapes and styles, pointing toward an ideal carton or box. Then the thing to do is to set to work to attain a container approaching this ideal. When it is completed, the reaction from a number of women (not in a group, however, but singly so the expression of opinion will not be biased by the others' opinion) can be gotten and it will soon be found whether the package is good or bad.

If the women who have passed opinion have been from the class to which the product will appeal by its price, quality and purpose, then the results of the above test can be depended upon as accurate and reliable. They represent the consuming public and the consuming public is both the judge and the jury.

A look at the shelves of the retail outlets will demonstrate whether this procedure has been followed. Most of the atrocious packages thereon could have been avoided and in their stead there would be packages of beauty, attractiveness and sales stimulating appeal. As for soaps, druggists usually stick them in an out of the way drawer, while the grocer puts them on the floor under the shelves well toward the rear. Few soap manufacturers have taken cognizance of this and then done something about it. True they have provided displays, special prices and the like to get them up on display but few, if any, have had the courage to restyle their cartons or their wrappers.

Many will admit their carton or wrapper can be improved upon. What then can be holding them back? The only fellow who can't afford to or doesn't dare to change his container is the isolated one selling only to the lowest strata of white trade and to colored folks. Possibly they would be too ignorant to appreciate or recognize the new. But who will admit this class as being his customers?

(To be concluded)

In a report made recently before the American Chemical Society by chemists of E. I. du Pont de Nemours & Co., Wilmington, the prediction was made that the value of insecticide production will eventually rise to an annual total of \$150,000,000. New chemical products to control insects were forecast which will bring savings to farmers in crop production amounting to millions of dollars.

Lehn & Fink Products Company, Bloomfield, N. J., reports a net profit, after depreciation, Federal taxes, etc., of \$94,496, for the six months ended June 30, 1935. This compares with a net profit of \$296,884 for the corresponding period of 1934.

SANITARY PRODUCTS AT HOUSE SHOW

The annual New York Housewares Show was held at the Hotel Pennsylvania, New York City, July 10-19, with a considerable number of makers of polishes, floor waxes, rug shampoos, soaps, mops, brushes, etc., numbered among the exhibitors. Windsor Wax Co. of New York had on display cans of their various products, including paste wax, dance floor wax, furniture polish, liquid wax and no-rub wax. Other exhibitors and their products displayed included the following: Wilbert Products Co., New York, no-rub floor wax; Empire Brush Works, Port Chester, N. Y., brushes; S. C. Johnson & Son, Racine, Wis., waxes; Du-All Mfg. Co., Geneva, Ohio, mops and polishes; Murphy's Oil Soap Company Division of Phoenix Oil Co., Cleveland, soaps; Solv-O Co., Rochester, N. Y., rug shampoos; H. Hertzberg & Son, New York, brooms, brushes and mops.

Spider mites are represented by the red spider, Tetranychus telarius Linn., and the European red mite, Paratetranychus pilosus C. & F. miscible oils containing 5-6 per cent of actual oil sprayed on ornamental plants about 2 weeks before the buds swell destroy the eggs of the mites. Derris sprays containing the equivalent of 1 per cent of rotenone are satisfactory for summer control. Clyde C. Hamilton. N. J. Agr. Expt. Sta., Circ. 334, 4 pp.

The Burma Municipal Gazette, official organ of all municipalities in Burma, India, has recently issued a bulletin stressing the importance of rat control. The use of "Cyanogas", a product of American Cyanamid & Chemical Corp., New York, is recommended for use in rat control.

In our July issue we named incorrectly the wall containers and deodorizing blocs installed on the S. S. Normandie by Deco Products Co., New York. The correct designation is "Pure-O-Air." Chief Purser Villar of the Normandie advises that the "Pure-O-Air" discs are working perfectly on the ship.

Owens-Illinois Glass Co. has announced the advancement of W. M. Gates to the position of assistant to the general sales manager. Mr. Gates has previously been manager of the statistical and inventory control division of the sales department.

J. C. Wright Laboratories, Atlanta, is marketing a new parasiticide which will be sold under the name "Septi Cide." The product, called useful in the treatment of athlete's foot, sells in a 2-ounce bottle for \$1.00.

Lautier Fils, Inc., New York City, perfuming materials, has moved from 78-80 Beekman Street to 158 West 18th Street.

Hockwald Chemical Co., San Francisco, manufacturer of soaps, insecticides, disinfectants, etc., moved recently from 436 Bryant St. to 30 Bluxome St.

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20

Olive Oil Foots

Deliveries spot and future in barrels, tank cars, drums or tank wagons.

co

ESSENTIAL OILS

Lemon-Bergamot-Orange

619

LEGHORN TRADING CO.

155 East 44th St., New York

Phone: VAnderbilt 3-6361-2-3

ITALY-SPAIN-GREECE-TURKEY-AFRICA

POWDER DISPENSER

Palmer's NEW "TIPOWDER"

Soap Dispenser

At last an economical, positive-serving powder dispenser—with no mechanical parts to get out of order, no springs to cause trouble.



Positive in operation—impossible to become clogged. Patented dispensing device of pleasing design—yet simple and entirely practical. No metal bands, cracks or crevices to gather dirt or germs. Wiped clean as easily as a dish—and is tamper proof.

Tilting of dispenser permits pre-determined quantity of soap to flow smoothly and steadily—yet a wasteful continuous flow of soap is absolutely impossible.

All metal parts chrome plated—choice of black china, opal china, or clear, crystal glass bowls.



9

Write for new illustrated catalog describing complete Palmer line of soap dispensing equipment, janitor and sanitary supplies, maintenance materials and equipment.

CRYS-TINTS

PERFUME and color Para Blocks and Crystals, Bath Salts and Moth Balls in one operation.

The use of Crys-Tints eliminates doubtful results for they provide uniform distribution of Odor and Color and are extremely lasting and stable.

Orange Blossom New Mown Hay Carnation Layender

Narcisse Wisteria Lilac Oriental Rose Jasmin Pine

8 OUNCES TO 100 LBS., RECOMMENDED

\$1.50 per Lb.
Double Strength, \$2.90 per Lb.
Series D—Uncolored, \$.50 per Lb.
Series E—Uncolored, \$1.00 per Lb.

Compagnie Parento, Inc.

CROTON-ON-HUDSON, N.Y.
NEW YORK CITY TORONTO

1935 CROP FLOWERS ARE IN OUR FIRST SHIPMENT

ASSAYED

1.19% PYRETHRINS

THEY ARE A BEAUTIFUL GOLDEN COLOR. MAY WE SEND YOU SAMPLE AND PRICES ON THE SUPERIOR EXTRACT MADE FROM THEM.

ASK FOR



CONCENTRATED

PYRETHRUM EXTRACT
KILL COLOR ODOR

AN-FO MFG. CO., OAKLAND, CALIF.

FUTURE OF LIQUID INSECTICIDES

(From Page 88)

to what may be expected from the regular use of a good insect killer.

While a good many of the early insecticides were like prohibition gin,—made in a bathtub—experience since then has definitely proved that to put out a good product, proper equipment is required as well as close scientific control, all of which costs money. The larger manufacturers have been woefully lax in permitting the impression to prevail that good products could be made with no more equipment than an ash can or rusty bathtub, when as a matter of fact the processing of a good product requires a great deal more equipment and control than many other important items of merchandise offered to the public.

In conclusion, it can be said that the future of the household insecticide business will be good if the manufacturers in the industry will permit it to be good. If they will tear down the faulty parts of the marketing structure which have been built in haste and in error, and rebuild them on sound scientific fact and good sense, they can open up a market many times greater than that of today. If they will retrace their steps to correct their errors, and be guided in the future by what has been definitely proved by recent experience, there will be no doubt about the brightness of the industry's future.

the damp cloth on rolls, sweeping and dusting method properly, can finish his work at one time. This made the janitors happy because they saved carfare, the time to go home and back, and saved the time by going into each room only once each day instead of twice as they had to do with the old method.

NEW METHODS IN JANITOR SERVICE

(From Page 105)

In THE course of six months over 400 janitors were equipped and trained with this new sweeper. I made a general inquiry of all the janitors who had been using the new sweeper for two months or over and did not find a single one who would give it up for the old one. This experiment convinced me that in order to help a janitor, the manager must be the boss. He must know what the janitor should use. He must know the best method to use, and he must have his janitors trained accordingly. It is better to change a janitor who does not want to learn than to let him go along with inefficient methods, working hard and performing inferior service. It is unreasonable to expect that a janitor should be able to devise methods of cleaning and improve them as often as necessary or as often as possible.

The janitor's trade compels the man to work at odd hours breathing impure air and dust, and he must work pretty fast in order to finish his work in time. Under these conditions his ability to think in terms of business, saving and efficiency is greatly hampered, and all he can think of is to avoid losing any time in getting through with his routine work, and avoid complaints.

In other words the trade itself drives the man to do most of his work physically instead of saving his physical energy with a proper proportion of mental energy.

Under these conditions I believe that the manager who is inclined "to be good" to his janitor by allowing him to decide on the method and materials he uses is not doing justice to the workman. The manager's duty and position is to think for the janitor, put the janitor on the right road to enable him to do better and more cleaning, and at the same time making his work easier.

When a janitor cannot be made to understand or learn a better method he should be given a vacation, put someone else in his place who will use the new method or product, then prove to him when he comes back that the new man with the new method did much better than he was doing. The manager who hesitates trying new methods because of the grievances caused by disturbing his present organization sooner or later gets more complaints than he can correct.

THE TERMITE SITUATION

(From Page 95)

forming many other funny antics. But these "monkeyshines" prove themselves in time, and I do not think that we will have such trouble as Louisiana had, where they were forced, on account of widespread faking, to put on an examination for termite operators, and eliminated 90 per cent of the self-styled experts on the first examination, and a year later, checked their work and eliminated 50 per cent of the remainder.

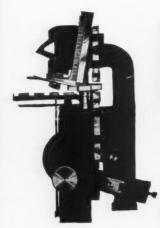
The low bids are not taking as many termites jobs this year as they did last year. Personally, I like to see the extreme low bidder and the extreme high bidder bid on every job. Then the owner senses something wrong, and investigates as to the ability and responsibility of all concerns bidding. If all termite jobs were awarded on a price basis, there would be very few termites killed and most of the money spent would be worse than wasted on account of additional damage, involving reconstruction, before the work proved itself useless the following season. The purchasers of termite service this year are using their heads more than ever, and considering the ability of the firms before considering competitive prices. Even the banks and insurance companies, who are supposed to operate on a strictly price basis, are not now letting contracts without proof of ability, which is considered before price.

New Jersey Sanitary Service Co., formerly at 725 Lyons Ave., Irvington, N. J., has moved to 87 Coolidge Street.

Puro Sales Co., exterminators, formerly at 111 East Wisconsin Ave., Milwaukee, has moved to a new location at 918 North Plankinton Ave.

Neptune Exterminating Co., Newark, N. J., has moved from 44 Bleeker St. to 953 Bergen Ave.

Special SOAP MACHINERY Completely Offerings of SOAP MACHINERY Rebuilt!



Small size fully automatic Jones toilet soap press. Capacity 150 to 200 small cakes per minute.

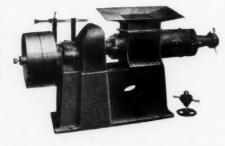
A real buy at an attractively low

price. Has been completely re-

built in our own shops.



H-A SOAP MILL This 4-roll granite toilet soap mill is in A-1 shape. Latest and largest size rolls.



Single screw soap plodders with 6, 8, 10 or 12 inch screws. All completely rebuilt and unconditionally guaranteed.



4 JONES AUTOMATIC combination laundry and toilet soap presses. All complete and in perfect condi-



2 Automatic Power Soap Cutting Tables

NEW CRUTCHERS!



This Newman brand new, all steel steam jacketed soap crutcher. Will crutch any kind of soap. We also build another crutcher especially adapted for laundry soap in addition to other new soap machinery such as frames, cutting tables, etc. Send for complete list.

ADDITIONAL REBUILT SOAP MACHINERY

H-A 1500, 3000, 4000, 5000 lbs. capacity. Steam Jacketed Crutchers.

Dopp Steam Jacketed Crutchers, 1000, 1200, 1500 lbs. and 800 gals. capacity.

Ralston Automatic Soap Presses.

Scouring Soap Presses.

Empire State, Dopp & Crosby Foot Presses.

2, 3, 4, 5 and 6 roll Granite Toilet Soap Mills.

H-A 4 and 5 roll Steel Mills.

H-A Automatic and Hand-Power slabbers.

Proctor & Schwartz Bar Soap Dryers. Blanchard No. 10-A and No. 14 Soap Powder Mills.

J. H. Day Jaw Soap Crusher.

H-A 6, 8 and 10 inch Single Screw Plodders.

Allbright-Nell 10 inch Plodders.

Filling and Weighing Machines for Flakes, Powders, etc.

Steel Soap frames, all sizes.

Steam Jacketed Soap Remelters.

Automatic Soap Wrapping Machines. Glycerin Evaporators, Pumps. Sperry Cast Iron Square Filter Presses, 10, 12, 18, 24, 30 and 36

Perrin 18 inch Filter Press with Jacketed Plates.

Gedge-Gray Mixers, 25 to 6000 lbs. capacity, with and without Sifter

Day Grinding and Sifting Machinery. Schultz-O'Neill Mills.

Day Pony Mixers.

Gardiner Sifter and Mixer.

Proctor & Schwartz large roll Soap Chip Dryers complete.

Doll Steam Jacketed Soap Crutchers, 1000, 1200 and 1350 lbs. capacity.

Day Talcum Powder Mixers.

All types and sizes-Tanks and Kettles.

Ralston and H-A Automatic Cutting Tables.

Soap Dies for Foot and Automatic Presses.

Broughton Soap Powder Mixers.

Williams Crutcher and Pulverizer.

National Filling and Weighing Machines.

All used equipment rebuilt in our own shops and guaranteed first class condition

Send us a list of your surplus equipment—we buy separate units or complete plants.

NEWMAN TALLOW & SOAP MACHINERY COMPANY 1051 W. 35th St. CHICAGO

Our Forty Years Soap Experience Can Help Solve Your Problems

CLASSIFIED ADVERTISING

Classified Advertising-All classified advertisements will be charged for at the rate of ten cents per word, \$2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, \$1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of Soap, 254 West 31st St., New York.

Note: All advertisements must be in publisher's hands by the first of the month for that month's issue.

Positions Wanted

Chemist-experienced in soaps, oils, fats, foods, cosmetics, and disinfectants. Desires position in research, control, analytical or production laboratory. Address Box No. 604, care Soap.

Insecticides-Plant superintendent and chemist who has had twenty years' experience in manufacturing insecticides and ten years' experience with biological and chemical control of leading fly spray manufacturer, seeks new connection. Highest references. Address Box No. 605, care Soap.

Soapmaker-Twenty years' experience. Can make and analyze all kinds of soaps and products. Salary reasonable and hard worker. Address Box No. 606, care Soap.

Factory Superintendent or Manager-open for position. Has expert knowledge of manufacture of soaps. Moderate salary. Address Box No. 603, care Soap.

Soapmaker - Reliable, 16 years' experience in textile soaps, laundry chips and bars, oil soaps, specialty soaps, etc. Seeks permanent connection. Address Box No. 594, care Soap.

Soapmaker and Chemist—whose past record and experience qualify him for meeting highest technical requirements, desires steady employment with progressive concern. Address Box No. 608, care Soap.

Soapmaker—Twenty years' experience. Can make and analyze all kinds of soaps and products. Salary reasonable and hard worker. Address Box No. 611, care Soap.

Positions Open

(Wanted-Man not afraid to work with some knowledge of soapmaking and chemistry to assist soapmaker. Address The Minnesota Chemical Co., St. Paul, Minn.

This Versatile Press

is good for a variety of uses besides making para blocks. Soap, for instance, can be pressed with suitable dies to produce as fine looking cakes as come from the most expensive automatic press. Or, for instance, if you bottle some of your liquid mixtures, the Huber hand lever press can be equipped with little

expense to cap the bottles. For purposes such as this it has a considerable advantage over the foot press, as the pressure of each stroke is subject to sensitive hand control.

Anything that requires compression, within the limitations of manual power, can be handled in these presses. Truly they are "all-purpose" machines, invaluable to the plant with diversified output and multiplied production problems.



Available in style illustrated or in bench type.

HUBER MACHINE CO.

265 46th St., Brooklyn, N. Y.

Every item shipped from our shops at Newark, N. J., is thoroughly overhauled and rebuilt before shipment.

SPECIALS

- 1-Soap Chip Dryer, 1200 lb.
- 2-Dopp 650 gal. Steam Jacketed Kettles.
- 1-Dopp 1200 lb. Steam Jacketed Crutcher.
- 1-Hershey 1000 lb. Horizontal Jacketed Crutcher.
- 1-1000 lb. All Steel Soap Powder Mixer.
- 2-Holmes & Blanchard 24" and 36" 4 cage Disintegrators, for grinding soap powder-no screens, no plugging.
- 25—Soap Frames, 60"x45½"x14", with trucks 6—Plodders, Houchin, Rutschman, 4", 4½" double

- screw, 6", 8", 10".

 14—Filter Presses, 42"x42" to 12"x12".

 8—Granite Mills, 3 and 4 roll, 12", 18" and 24".

 15—Horizontal Mixers, Jacketed and Plain, 15 gal. to 1000 gal.

MISCELLANEOUS—Kettles, Mixers, Pony Mixers, Powder Fillers, Tube Fillers, Labelers, Soap Presses, Soap Wrappers, Tanks, Boilers, Pumps, etc.

Send for Latest Bulletin.

CONSOLIDATED

PRODUCTS COMPANY, INC.

15-21 Park Row, N. Y. C. BArclay 7-0600 We buy your idle Machinery-Single items or entire plants.

MEGHLINGS

EST.



CAMDEN, N. J. BOSTON, MASS. SILICATE DE SUDA

MECHLING BROS-CHEMICAL COMPANY

A New Source For

TRI-SODIUM PHOSPHATE

The Tidewater division of the American Chemical Paint Company has developed and now manufactures a new type free-flowing Tri-Sodium Phosphate which is furnished in standard T.S.P. Containers. A sample and a quotation on your requirements will be furnished on request.

TRISILA

A new alkaline detergent for use with all soaps and cleansers is also manufactured by this company. Samples and prices on request.



AMERICAN CHEMICAL PAINT CO.

TIDEWATER DIVISION

New Castle, Delaware



SOAP DIES and STAMPS

-for-TOILET SOAPS LAUNDRY SOAPS BATH TABLETS STAMPING

For Foot and Power Presses

Manufacture Backed by 35 Years' Experience

ANTHONY J. FRIES

717 Sycamore Street

Cincinnati, O., U. S. A.

Detergent Chemist—Man wanted with experience in the chemistry of detergents, preferably a Ph.D., with actual commercial experience in this field. Communicate with Box No. 609, care Soap.

A Prominent Manufacturer of liquid soaps, disinfectants, deodorizing cakes, etc., has an opening for a dependable sales representative. Address Box No. 607, care *Soap*.

Wanted — A firm mining Wyoming Bentonite wants to get in touch with a technical man who has had experience in incorporating Bentonite in soap. Confidential correspondence solicited. Address The Wyodak Chemical Co., Station D, Cleveland, O.

Wanted—Limited number of salesmen in various parts of United States. To sell complete and nationally known line of floor cleaners, waxes and treatments. Also salesmen to specialize in floor machines, rug shampooing machines and maintenance equipment. Must have car. Commission. Write to Continental Car-Na-Var Corporation, Brazil, Indiana.

Miscellaneous

For Sale or Lease—soap factory, plot 200x100. 40,000 square feet. Greenpoint section of Brooklyn. Alex R. Wilson, 71 Broadway, New York City.

Distributors—We manufacture Metal, Silver, Stove Polishes. Also complete line of Bar Room Cleaning Materials. We specialize in bulk jobbing trade. Send for prices. Sales representatives wanted. The Slick-Shine Co., Inc., Newark, N. J.

For Sale—Practically new Schlemmer Wrapping Machine. Skat Co., Hartford, Conn.

Formulas and Short-Cuts—Assistance in manufacturing difficulties offered by practical soapmaker and chemist with over 20 years' experience. Soaps of every description from toilet to laundry soaps, from shaving cream to soap powder, also insecticides and self-polishing wax. Address Box No. 599, care Soap.

For Sale—15 Soap Frames on trucks; 1 No. 10 Blanchard Grinder; 1 Copper Kettle, 3 ft. x 7 ft. with coils; 1 Hand Tube Filler; Electric Motors. Address The J. P. S. Chemical Co., 702 E. Grand River Ave., Lansing, Mich.

New Soap Markets for You!

All textile mills, dyers, finishers and printers in the United States and Canada are fully reported in the New DAVISON'S TEXTILE BLUE BOOK and Dockham's American Report and Directory. 69th year.

Hundreds of mills and dyers are big consumers of soap. A circular letter or a salesman calling on this field will pay you well.

Fifteen hundred pages in size, thumb indexed for quick reference, strongly bound and with information arranged for instant use, this volume will make money for you in providing accurate and complete information in the entire textile manufacturing, dyeing and finishing trades.



Actual photograph. Fifteen hundred pages of reports, lists, statistics and indexes

"A Davison Publication - Standard Since 1866"

Davison's Textile Blue Book

Office Edition \$7.50 Handy Size \$5.00

Special Salesmen's Directory \$4.00 50 UNION SQUARE NEW YORK

Cables: "Davitex"

FUMERAL PRESSURE SYSTEM CONNECTS TO STEAM OR AIR PRESSURE LINE



FUMERAL PRESSURE SYSTEM

Does a Thorough Job INEXPENSIVE - EFFICIENT - ECONOMICAL

The effectiveness of any good spray solution depends upon the efficiency of your spray equipment. Wet sprays are not efficient. It takes a minimum of 30 lbs. (steam or air pressure) to diffuse spray solutions. THE FUMERAL INSTANT DIFFUSER instantly charges the entire room. No insects, flies, cockroaches, ants, moths or germs have a chance to escape. Connects to any steam or air line. Turn on the valve and in 4 minutes the operation is completed. No electricity to fuse with. No moving parts. Nothing to get out of order. FUMERALS stay sold. Simple—Inexpensive—More Efficient and Most Economical. Anyone can install it. Various brands of insecticides, germicides, bactericides, deodorants, disinfectants and perfumes all work well in the FUMERAL INSTANT DIFFUSER.

FUMERAL COMPANY, RACINE, WIS.

Manufacturers of Stationary and Portable Diffusers
Sanitary Consulting Engineers



F. & S.

Quality Colors

TOILET SOAPS LIQUID SOAPS

TOILET PREPARATIONS

Long experience enables us to produce colors for all types of soaps.

If you have a shade you want matched send us a sample. We have complete facilities for matching.

Liquid soap colors a specialty—send for samples of F. & S. greens and ambers.

FEZANDIE & SPERRLE, Inc.

205 FULTON STREET NEW YORK, N. Y.

Import—Manufacture—Export



We manufacture a complete line of high quality waxes for the jobbing trade, including no-rubbing liquid wax, regular type liquid wax, powdered wax, paste wax and also furniture polish. These products can be supplied in bulk, packaged under the Windsor label or with your own label which we supply.

WINDSOR WAX COMPANY 53 PARK PL. New York NY

bil Newark St. Hoboken N J

Manufacturers of WAX PRODUCTS EXCLUSIVELY



MODERN COSMETICS

Four hundred pages of practical, usable information for the manufacturer of cosmetics. Complete and authoritative, the result of more than a year's work carefully compiling and checking information. This is the first practical manual for the manufacturer, covering every phase of cosmetic manufacturing. A valuable reference book, yet it is written so clearly and with a minimum use of technical terms that it will be found particularly valuable to the manufacturer with limited technical training.

Price - Six Dollars - Order from

MAC NAIR-DORLAND COMPANY, Inc.

136 LIBERTY STREET

NEW YORK CITY

Wanted-One ten or fifteen horsepower vertical, fire tube-gas fired steam boiler, capable of generating steam at a pressure of one hundred pounds per square inch. Boiler preferably should be equipped with an automatic water feed capable of operating against back pressures of one hundred pounds per square inch. One jacketed copper kettle, high jacket form, capacity one hundred and fifty to two hundred gallons. State whether the kettle is equipped with or without an agitator and location of all openings and outlets. Send complete description of the above items to Box No. 592, care Soap.

For Sale—150 gallon Dopp steam jacketed kettle. Skat Company, Hartford, Conn.

For Sale—Soap factory on Pacific Coast with six large kettles and power plant, now making bulk chips and powders and limited amount of toilet soap. Complete oil refinery connected with factory. Railroad siding and ample storage facilities. Can be purchased at a bargain. Owner desires to retire from business. Address Box No. 589, care Soap.

Distributor - Finest oil, liquid, hard soap; polishes. Baum's, Rome, N. Y.

We announce development of new type soap

They have good fastness to alkali, light, tin, ageing.

The following shades are already available:

Bright Green

Dark Brown

Olive Green

Palm Green

Yellow

Golden Brown

True Blue

Violet

It will pay you to send for testing samples.

PYLAM PRODUCTS CO., INC.

Manufacturing Chemists, Importers, Exporters 799 Greenwich St.

New York City

Cable Address: "Pylamco"

NEW AND REBUILT

SPECIAL

- Jones Automatic Type "A" Soap Press for toilet and laundry soap.
- -3 and 5 Roll Steel Mills
- -10" Houchin-Aiken Plodder
- Automatic Power Cutting Table
- -Broughton Mixer, jacketed -10A Blanchard Mills

- Soap Presses, Foot and Power Filter Presses, sizes 6" to 36" -Granite Stone Mills, 2, 3, and 4 rolls
- -Glycerine Evaporators, double and triple
- effect. Jacketed Vertical Crutchers
- 1,500 lb. Horizontal Crutchers
- Hand Power Slabbers

2—Hand Power Slabbers

2—Hand Power Cutting Tables

3—Houchin Chippers, Belt Driven

600 and 1,200 lb. Frames, Kettles, Pumps, Tanks, Filter
Presses, Wrapping Machines, Tube Filliers, Closers,
Crimpers, Dry Powder Mixers, Pulverizers, Grinders,
Amalgamators, Mixers, etc.

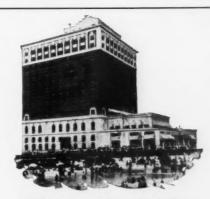
Send for Complete List (Bulletin No. 15)

WE BUY AND SELL FROM SINGLE ITEMS
TO COMPLETE PLANTS.

183 VARICK STREET

Phone: WAlker 5-6892-3-4

NEW YORK, N. Y. Cable Address:



What an ideal HOTEL for your CONVENTION!

Unequalled facilities and perfect location directly on the Boardwalk—Just a few minutes from the World's largest convention hall—Convenient to all transportation—Ample parking space and private garage. Complete Hotel Service.

Spacious Sun Decks-Large Swimming Pool Bar-Grill-Cocktail Lounge

Many activities and enjoyment for all with Golf, Fishing, Tennis, Horseback Riding right along the Beach and all available to Convention Guests.

Write for Special Rates and outline on arrangements to



ATLANTIC CITY, NEW JERSEY

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 124, for page numbers, "Say you saw it in SOAP."

ALKALIES

Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
Eastern Industries
Hooker Electrochemical Co.
Innis, Speiden & Co.
Niagara Alkali Co.
Solvay Sales Corp.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

American-British Chemical Supplies Compagnie Parento Dodge & Olcott Co. Dow Chemical Co. P. R. Dreyer, Inc. E. I. du Pont de Nemours & Co. Felton Chemical Co. Fritzsche Brothers, Inc. Givaudan-Delawanna, Inc. Magnus, Mabee & Reynard, Inc. Merck & Co. Monsanto Chemical Co. Naugatuck Chemical Co. Schimmel & Co. Solvay Sales Corp. A. M. Todd Co. Ungerer & Co. Van Ameringen-Haebler, Inc.

BULK AND PRIVATE BRAND PRODUCTS

An-Fo Manufacturing Co.
Baird & McGuire, Inc.
Chicago Sanitary Products Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Fuld Bros.
Hammond Paint & Chemical Co.
Harley Soap Co.
Hysan Products Co.
Hull Co.
Koppers Products Co.
Kranich Soap Co.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
Windsor Wax Co.

CHEMICALS

American-British Chemical Supplies Bowker Chemical Co. Columbia Alkali Co. T. G. Cooper & Co. Dow Chemical Co. E. I. du Pont de Nemours & Co. Eastern Industries General Chemical Co. Grasselli Chemical Co. Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Innis, Speiden & Co.
Mechling Bros. Chemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Ore & Chemical Corp.
Philadelphia Quartz Co.
Solvay Sales Corp.
Standard Silicate Co.
Jos. Turner & Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

COAL TAR RAW MATERIALS (Cresylic Acid, Tar Acid Oil, etc.)

American-British Chemical Supplies
Baird & McGuire, Inc.
Barrett Co.
T. G. Cooper & Co.
Innis, Speiden & Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

COLORS

Fezandie & Sperrle Pylam Products Co.

CONTAINERS and CLOSURES

American Can Co. (Tin Cans, Steel Pails)
Anchor Cap & Closure Corp. (Closures & Bottles)
Cin-Made Corp. (Paper Cans)
Continental Can Co. (Tin Cans)
Hinde & Dauch (Corrugated Fibre Products)
Maryland Glass Corp. (Bottles)
National Can Co. (Tin Cans)
Owens-Illinois Glass Co. (Bottles)
Wilson & Bennett Mfg. Co. (Steel Pails and Drums)

DEODORIZING BLOCK HOLDERS

Cin-Made Corp. (Paper) Clifton Chemical Co. Eagle Soap Corp. Fuld Bros. Hysan Products Co. Palmer Products, Inc.

ESSENTIAL OILS

Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer Inc.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Mabee & Reynard, Inc.
Schimmel & Co.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.
(Continued on page 122)

PROFESSIONAL DIRECTORY

PEASE LABORATORIES. Inc.

Chemists, Bacteriologists, Sanitarians

39 West 38th Street New York

Food, Drug and Cosmetic Problems—Compliance with Official Requirements—Meeting New and Anticipated Competitions with Improved and New Products

H. A. SEIL, Ph.D

E. B. PUTT, Ph.C., B.Sc.

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Specialists in the Analysis of Pyrethrum Flowers, Derris Root, Barbasco, or Cube Root—Their Concentrates and Finished Preparations

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STILLWELL AND GLADDING, Inc.

Analytical and Consulting Chemists

Members Association of Consulting Chemists and Chemical Engineers

130 Cedar Street

New York City

LLOYD A. HALL

Analytical and Consulting Chemist

Specializing in the analysis, development, investigation, and improvement of Soaps, Disinfectants, Cosmetics, Drugs, Polishes and Sanitary Specialties.

RESEARCH—CONSULTATION

1415 W. 37th STREET

CHICAGO ILL.

IOWA

KILLING strength of Insecticides

by PEET GRADY ME

(Official I. & D. code method) and PYRETHRINS in PYRETHRUM FLOWERS (by Gnadinger's Method)

We raised and killed more than 1 million flies in the last 2 years ILLINOIS CHEMICAL LABORATORIES, INC.
75 E. WACKER DRIVE CHICAGO, ILL

COST SYSTEMS

Designed and installed for Soap Manufacturers and allied industries. Service in—Cost Analysis—Federal Taxation— Audits and Financial Statements.

TWENTY-FIVE YEARS' EXPERIENCE

LOUIS J. MUEHLE & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

DES MOINES

Skinner & Sherman, Inc.

246 Stuart Street, Boston, Mass.

Bacteriologists and Chemists

Disinfectants tested for germicidal value or phenol coefficient by any of the recognized methods.

Research—Analyses—Tests

SOAPS — DETERGENTS

Analyses Consultation Development **Formulas**

Hochstadter Laboratories

254 West 31st St.

New York City

Entomological Testing Laboratories, Inc.

We offer you a medium for purchasing insecticides on an intelligent basis.

Entomological testing by the Peet-Grady method, and chemical examination of insecticides are available.

114 E. 32nd St.

New York, N. Y.

Protect Your Products by

Patents-Trade Marks

All inventions submitted held confidential and given personal attention by members of the firm. Form "Evidence of Conception" and instructions "How to Establish Your Rights"-Free

LANCASTER, ALLWINE & ROMMEL

Patent Law Offices
420 Bowen Building Washington, D. C.

Progressive manufacturers plan for the development of new items at least a year in advance of introducing them on the market. To correct faults before a product is marketed is genuine economy.

> Foster D. Snell, Inc. Chemists-:-Engineers 305 Washington St., Brooklyn, N. Y.

RAW MATERIAL AND EQUIPMENT GUIDE

(Continued from page 120)

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MACHINERY

Battle Creek Wrapping Machine Co. (Packaging Machinery)
Blanchard Machine Co. (Soap Powder)
Ertel Engineering Corp. (Filters, Mixers, Bottle Fillers)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
International Nickel Co. (Monel Metal)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Package Machinery Co. (Packaging)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packing Machinery)
U. S. Bottlers Machinery Co. (Bottle Filling and Cleaning)

MACHINERY, USED

Consolidated Products Co. Newman Tallow & Soap Machinery Co. Stein-Brill Co.

MISCELLANEOUS

Anchor Cap & Closure Corp. (Metal Caps)
T. G. Cooper & Co. (Waxes)
Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
Exterminating Materials Co.
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Innis, Speiden & Co. (Fumigants and Waxes)
Murray & Nickell Mfg. Co. (Moth Proofing Liquid)
Pylam Products Co. (Lathering Agent)
Rohm & Haas Co. (Insecticide Base)

OILS AND FATS

T. G. Cooper & Co.
Eastern Industries
Industrial Chemical Sales Co.
Leghorn Trading Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Theobald Animal By-Products Refinery
United Africa Co.
Welch, Holme & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Jos. Turner & Co.

PERFUMING COMPOUNDS

Compagnie Parento Dodge & Olcott Co. P. R. Dreyer, Inc. Felton Chemical Corp. Fritzsche Brothers, Inc. Givaudan-Delawanna, Inc. Magnus, Mabee & Reynard, Inc. Schimmel & Co. Ungerer & Co. Van Ameringen-Haebler. Inc.

PETROLEUM PRODUCTS

O'Connor & Kremp Sherwood Petroleum Co. L. Sonneborn Sons.

PYRETHRUM AND DERRIS PRODUCTS

Insect Flowers and Powder, Pyrenthrum Extract,
Derris Products

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Short Story

(With Apologies to Esquire)

Ten business papers claim circulation in the manufacturing field of soaps, chemicals, cosmetics, sanitary products, drugs, etc. SOAP and two chemical engineering papers are the only ones which have memberships in the Audit Bureau of Circulations. The other seven claim more circulation than SOAP proves with an A.B.C. report.





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Here and There

CONGRATULATIONS on the June issue of SOAP have come to us all the way from Switzerland,—and from none other than our old friend, Dr. William Dreyfus, chief chemist for West Disinfecting, who is summering at Bad Schuls near Oberenbingen. He reports himself feeling fine and in the best of health.

To the editor of one of our contemporaries in the chemical field, a subscriber writes to complain about letting politics creep into the pages of that magazine. The subscriber holds that politics have no place in the business press. But with Washington putting its official finger into the affairs of business up to the elbow, just how can an editor with half an ounce of gumption help getting a trifle political now and then, . . . not to mention sarcastic, ironic, and just plain hot under the collar?

For the first six months of 1935 just ended, more than nine out of every ten paid subscribers to SOAP renewed their subscriptions. In fact, the exact official subscription renewal figure as determined and attested by the A.B.C. (Audit Bureau of Circulations) was 91.98 per cent. And every subscription was at the full \$3 price (\$5 in Canada and \$4 elsewhere out of the U.S.) . . . no highpressure solicitors, no cut prices, no fancy premiums, no tricks to renew or increase circulation . . . if you get what we mean. Genuine subscription renewals verified by an A.B.C. audit. And under normal conditions, 70 per cent is ordinarily considered a good renewal rate for trade papers!

If our observations are correct, new machinery and equipment installations by soap and allied manufacturers this year are the most extensive since 1929. When competition is hot, nothing is more expensive to any manufacturer than old and out-moded equipment.

City _

